# THE ANALYST

THE JOURNAL OF

# The Society for Analytical Chemistry

A MONTHLY INTERNATIONAL PUBLICATION DEALING WITH ALL BRANCHES OF ANALYTICAL CHEMISTRY

**VOL. 92** 

1967

Published for the Society by
W. HEFFER & SONS, LTD.
4 PETTY CURY, GAMBRIDGE, ENGLAND



# INDEX TO VOLUME 92 INDEX TO AUTHORS

Abbott, D. C., Burridge, A. S., Thomson, J., and Webb, K. S. Thin-layer chromatographic screening test for organophosphorus pesticide residues, 170.

- and Egan. H. Determination of residues of organophosphorus pesticides in foods: review, 475.

Akhtar, M. See Hill, A. C. Alvarez, B. M. Detecting adulteration of fruit juices by thin-layer chromatography, 176.

Anderson, R. G., and Nickless, G. Heterocyclic azo dyestuffs in analytical chemistry: review, 207; Erratum, 538.

Andrew, T. R., and Nichols, P. N. R. Importance of fuel gas composition in atomic-absorption spectrophotometric determination of magnesium, 156.

Andrews, R. E. S. See Cooper, P. J.

Angell, F. G. Review of Kauffman's Alfred Werner Founder of Coordination Chemistry, 202; Review of Stewart's Investigation of Organic Reactions, 206; Review of Haynes' Qualitative Organic Analysis. 2nd Edn., 275; Review of Zeiss, Wheatley and Winkler's Benzenoid - Metal Complexes, 537.

Anger, V. See Feigl, F.

Ani, M. J. Al., Dagnall, R. M., and West, T. S.
Preparation of metal halide - mercury microwaveexcited electrodeless discharge tubes as spectralline sources, 597.

Antić-Jovanović, A. M. See Marinković, M. D. Archer, E. E., Jeater, H. W., and Martin, J. Determination of water in organic liquids, 524.

Armarego, W. L. F. See Perrin, D. D. Armet, R. C. Modern Electroplating Laboratory
Manual. (Review), 68.

Ashley, R. W. See Bruce, T. Assenheim, H. M. Introduction to Electron Spin Resonance. (Review), 203; Review of Emsley, Resonance: Neview, 2007. Feeney and Sutcliffe's Progress in Nuclear Magnetic Resonance Spectroscopy. Vol. 1, 278; Vol. 2, 785; Review of Mulay's Magnetic Susceptibility, 662.

Athavale, V. T., Dhaneshwar, M. R., and Dhaneshwar, R. G. Voltammetric studies with different electrode systems. II. Tungsten as reference

electrode in polarography, 567.

Awasthi, S. P., Sahasranaman, S., and Sundaresan, M. Determination of combined nitrogen in tungsten metal powder, 650. Azeem, M. Determining sulphate in presence of

soluble silicate, 115.

Bagness, J. E. See Yuen, S. H. Baker, C. A. Gamma-activation analysis: review, 601.

Bakes, J. M. See Jeffery, P. G.

Balbaa, S. I. See Karawya, M. S. Bark, L. S., Duncan, G., and Graham, R. J. T. Inorganic thin-layer chromatography. Chromatography of first row transition metals on thin layers of substrates impregnated with tributyl phosphate, 31; Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate, 347.

and **Griffin**, **D.** Use of 2-selenophene aldoxime for gravimetric determination of palladium, 162.

Basit, M. A. See Chalmers, R. A.

Bassett, D. W. Review of Behrndt's Vacuum Microbalance Techniques. Vol. 5, 410. Bassett, J., and Betts, J. W. Accurate metering of

gas flow for pyrolysis experiments in controlled atmosphere, 653.

Leton, G. B., and Vogel, A. I. Dioximes of large ring 1,2-diketones and their applications to determining bismuth, nickel and palladium, 279.

Basson, R. A., and Plessis, T. A. du. Spectrophotometric micro-determination of glycolaldehyde,

Bastings, L. See Claassen, A. Beamish, F. E. Analytical Chemistry of the Noble Metals. (Review), 598.

Becker, J., and Coetzee, C. J. Oxidimetric determination of molybdenum, 166.

Behrndt, K. H. Vacuum Microbalance Techniques. Vol. 5. (Review), 410.

Belkas, E. P. See Souliotis, A. G. Bell, G. J. See Lloyd, G. A.

Bellamy, L. J. Review of Szymanski's Systematic Approach to the Interpretation of Infrared Spectra.

Bennett, H., and Reed, R. A. Coagulation method for determining silica (without dehydration) in silicate materials, 466.

Berezkin, V. G. Analiticheskaya Reaktsionnaya Gazovaya Khromatografiya. (Review), 786.

Betts, J. W. See Bassett, J.
Bishop, E. Review of Yatsimirskii's Kinelic
Methods of Analysis. Translated by P. J. J. Harvey, 138; Review of Ritchie's Chemical Kinetics in Homogeneous Systems, 139; Review of Bockris's Modern Aspects of Electrochemistry. No. 4, 660; Review of Delahay and Tobias' Advances in Electrochemistry and Electrochemical Regineering. Vol. 4, 661; Review of Rexer's Reinststoffe-probleme. Vols. I and II, 661; Review of Reynolds and Lumrys' Mechanisms of

Electron Transfer, 661.

Bockris, J. O'M. Modern Aspects of Electro-chemistry. No. 4. (Review), 660.

Bogen, D. C., and Kleinman, M. T. Determination of microgram amounts of lead in food with radioactive tracer, 611.

Borland, H., Brownlie, I. A., and Godden, P. T. Determining boron in fertilisers, 47.

Boswell, G. G. J., and McGee, T. Radiochemical separation technique for palladium, 769.

Boulton, J. F., and Eardley, R. P. Preparing analysis samples of hard materials with boron carbide mortar, 271.

Boumans, P. W. J. M. Theory of Spectrochemical Excitation. (Review), 599. Bowen, H. J. M. Determining antimony, cadmium,

cerium, iridium and silver in biological material by radioactivation, 118; Comparative elemental analyses of standard plant material, 124,

Bradley, M. P. T., and Penketh, G. E. Determination of tertiary hydroxyl groups, 701.

Brammer, J. A., Frost, S., and Reid, V. W. Determining dicumyl peroxide in polystyrene materials,

Brownlie, I. A. See Borland, H. Bruce, T., and Ashley, R. W. Collection of uranium(VI) on cellulose phosphate, 137.

Bunting, W., and Walker, E. A. Determination of traces of dialkyl phthalates by gas-liquid chromatography, 575.

Burridge, A. S. See Abbott, D. C.

Butts, A., and Coxe, C. D. Silver, Economics, Metallurgy and Use. (Review), 722.

C

Caldwell, J. A. See Strizovic, A.

Capacho-Delgado, L., and Manning, D. C. Determination by atomic-absorption spectroscopy of several elements, including silicon, aluminium and titanium, in cement, 553.

Cartwright, P. F. S. Precipitation from homogeneous solution by cation release at constant

pH, 319.

 Newman, E. J., and Wilson, D. W. Precipitation from homogeneous solution: review, 663.

Cawse, P. A. Determining nitrate in soil solutions by ultraviolet spectrophotometry, 311.

Chalmers, R. A. Translation Editor of Laboratory Handbook of Chromatographic Methods. (Review), 599; Translation Editor of Pungor's Flame Photometry Theory. (Review), 720.
— and Basit, M. A. 8-Hydroxyquinoline as

gravimetric reagent for aluminium, 680.

Champion, K. P., and Whittem, R. N. Determining calcium in biological samples by X-ray fluorescence, 112.

Christie, A. A., Dunsdon, A. J., and Marshall, B. S. Field determination of organo-mercurial vapours in air, 185; Erratum, 538.

Claassen, A., and Bastings, L. Determination of aluminium with 8-hydroxyquinoline. I. Precipitation in acetate-buffered solution, 614.

 Bastings, L., and Visser, J. Determination of aluminium with 8-hydroxyquinoline. II. Precipitation in ammoniacal cyanide - EDTA solution, 618.

Clark, S. J. See Wotiz, H. H. Cleary, J. J. See Hamilton, E. I.

Coe, F. R. Device for transferring gases evolved at low pressure to a gas chromatograph, 199.

Coetzee, C. J. See Becker, J.

Cole, C. P. Review of Houghton and Smith's Infra-Red Physics, 474.

Coleman, R. F., and Pierce, T. B. Activation analysis: review, 1.

Coomber, D. I. Review of Evans' Tritium and its Compounds, 472.

Cooper, P. J., Andrews, R. E. S., and Hammond, P. W. Determination of chlorinated pesticides in aqueous emulsions, 493.

- and Hammond, P. W. Assay of organic bases

in aqueous eye-drops, 180.

— and **Hoodless, R. A.** Polarographic determination of dimetridazole in animal feeding stuffs, 520.

 Maunder, M. J. de F., and McCutcheon, G. J.
 Detecting and determining hexoestrol in meat, 382.

Cornfield, A. H. See Premi, P. R.

Coxe, C. D. See Butts, A. Cropper, F. R., Heinekey, D. M., and Westweil, A. Determining total organic matter (carbon content) in aqueous media. I. Organic matter in aqueous plant streams, 436; II. Involatile organic matter in demineralised water, 443.

Cuff, D. R. A. See Pierce, T. B.
Curry, A. S. Methods of Forensic Science. Vols.
III and IV. (Review), 69.

Curthoys, G., and Simpson, J. R. Determination of copper in trace-element superphosphate by A.C. polarography, 565.

D

Dagnall, R. M., Smith, R., and West, T. S. Spectro-fluorimetric determination of magnesium with N, N'-bis-salicylidene-2,3-diaminobenzofuran, 20; Spectrofluorimetric determination of terbium as EDTA - sulphosalicylic acid complex, 358.

Thompson, K. C., and West, T. S. Molecularemission spectroscopy in cool flames. I. Behaviour of sulphur species in hydrogen - nitrogen diffusion flame and shielded air - hydrogen flame.

506.

 West, T. S., and Young, P. Catechol violet colour reaction for tin(IV) sensitised by cetyltrimethylammonium bromide, 27.

- See also Ani, M. J. Al.

Dallas, M. S. J., and Stewart, M. F. Thin-layer chromatography of polyglycerols, 634.

Damokos, T., and Erdokürty, Z. Translators of Dobos' Electronic Electrochemical Measuring Instruments. (Review), 277.

Das Gupta, S. See Sinha, B. C. Dean, J. A. See Willard, H. H.

de Faubert Maunder, M. J. See Maunder, M. J. de F. Delahay, P., and Tobias, C. W. Advances in Electrochemistry and Electrochemical Engineering. Vol. 4. (Review), 661.

Delory, G. E. Photoelectric Colorimetry in Clinical

Biochemistry. (Review), 69.

Densham, A. B. Translator of Zhbankov's Infrarcd
Spectra of Cellulose and Its Derivatives. Edited
by B. I. Stepanov. (Review), 345.

Dhaneshwar, M. R. See Athavale, V. T. Dhaneshwar, R. G. See Athavale, V. T.

Dhont, J. H., and Dijkman, G. J. C. Qualitative analysis of complex carbonyl mixtures by thin-layer chromatography, 431.

Dijkman, G. J. C. See Dhont, J. H.

Dobos, D. Electronic Electrochemical Measuring Instruments. Translated by T. Damokos and Z. Erdökürty. (Review), 277.

Erdökürty. (Review), 277.

Donbrow, M. Instrumental Methods in Analytical Chemistry, Their Principles and Practice. Vol. 1. (Review), 660.

Down, J. L., and Gorsuch, T. T. Recovery of trace elements after oxidation of organic material with 50% hydrogen peroxide, 398.

Duff, G. M. S. See Wilson, H. N. Duncan, G. See Bark, L. S.

Dunsdon, A. J. See Christie, A. A. du Plessis, T. A. See Plessis, T. A. du.

Dwyer, J. Contamination Analysis and Control. (Review), 784.

E

Eardley, R. P. See Boulton, J. F.

Edisbury, J. R. Practical Hints on Absorption Spectrometry. (Review), 138.

Egan, H. See Abbott, D. C.

El-Hinnawi, E. E. Methods in Chemical and Mineral Microscopy. (Review), 472.

Ellis, B. A. Review of Nomenclature of Organic Chemistry, 141; Erratum, 278.

Ellis, W. R. See Snelson, F. L.

Elvidge, D. A. Review of Wotiz and Clark's Gas Chromatography in Analysis of Steroid Hormones, 345. Elwell, W. T. Review of Analyse der Metalle. Vol. I. 3rd Edn., 66; Review of Reilley and McLafferty's Advances in Analytical Chemistry and Instrumentation. Vol. 5, 140; Review of Pyatnitskii's Analytical Chemistry of Cobalt, 201; Review of Donbrow's Instrumental Methods in Analytical Chemistry, Their Principles and Practice. Vol. 1, 660; Review of Meinke and Scribner's Trace Characterization, 784; Review of

Mortimer's Chemistry, 787.

- and Gidley, J. A. F. Atomic-absorption Spectrophotometry. 2nd (Revised) Edn. (Review), 66. and Herringshaw, J. F. Review of Welcher's Standard Methods of Chemical Analysis. 6th Edn.

Vol. III, Parts A and B, 201.

Emsley, J. W., Feeney, J., and Sutcliffe, L. H. Progress in Nuclear Magnetic Resonance Spectroscopy. Vol. 1. (Review), 278; Vol. 2, 785.

Erdökürty, Z. See Damokos, T. Evans, E. A. Tritium and its Compounds. (Review),

472 Evans. W. H. Complexometric determination of aluminium and total iron in silicate and other rock

material, 685; Erratum, 788.

- and Sergeant, G. A. Determination of small amounts of fluorine in rocks and minerals, 690.

Fay, M. See Mallett, G. R.

Feeney, J. See Emsley, J. W.
Feigl, F., and Anger, V. Spot Tests in Organic
Analysis. Translated by R. E. Oesper. 7th English Edn. (Review), 206.

Ferguson, F. D., and Jones, T. K. The Phase Rule. (Review), 202.

Fishwick, F. B., and Taylor, A. Determining warfarin in animal relicta, 192; Erratum, 346. Fleck, G. M. Equilibria in Solution. (Review), 141.
Fleet, B. Review of Hills' Polarography 1964.

Vols. 1 and 2, 276.

Fowlis, I. A., and Welti, D. Collection of fractions separated by gas - liquid chromatography. II. Direct transfer of the fraction from the trap to a silver chloride infrared cell or a nuclear magnetic resonance spherical microcell, 639.

 Franks, M. C. See Wilson, J. N.
 Fresenius, W., and Jander, G. Handbuch der analytischen Chemie. Part 3. Vol. IVαβ. G. Kraft. (Review), 410; Vol. IBβ. H. W. Haase, 721.

Freshwater, D. C. See Pike, K. A. Frost, B. E. See Lack, M. D. Frost, S. See Brammer, J. A.

Gentry, C. H. R. Review of Lewis, Ott and Sine's Analysis of Nickel, 204.

Gibbons, D. Review of Wilson's Radiochemical Manual. 2nd Edn., 205.

Gidley, J. A. F. Review of McKinley, Heinrich and Wittry's Electron Microprobe, 68; Review of Zweites Kolloquium uber metallkundliche Analyse mit besonderer Berucksichtigung der Elektronenstrahl-Mikroanalyse, Wien, 20-22 Oktober 1965,

See also Elwell, W. T.

Girgis, A. N. See Karawya, M. S. Glick, D. Methods of Biochemical Analysis. Vol. 14. (Review), 343. Godden, P. T. See Borland, H.

Gorsuch, T. T. See Down, J. L. Graham, R. J. T. See Bark, L. S. Grant, J. Review of Mark, McKetta, Othmer and Standen's Kirk-Othmer Encyclopedia of Chemical Technology, Vol. 10, 2004, Eds. 272, Vol. 10, 252 Technology. Vol. 9. 2nd Edn., 273; Vol. 10, 658; 719; Review of Zhbankov's Infrared Spectra of Cellulose and Its Derivatives. Edited by B. I. Stepanov. Translated by A. B. Densham, 345.

Gray, C. H. Laboratory Handbook of Toxic Agents. 2nd Edn. (Review), 67. Gregg, S. J. Review of Ferguson and Jones's

The Phase Rule, 202.

Gregory, G. R. E. C., and Jeffery, P. G. Salicylideneamino-2-thiophenol-reagent for photometric determination of tin: application to analysis of ores, rocks and minerals, 293; Erratum, 538.

Grey, G. E. de. See Smith, J. W. G.
Griffin, D. See Bark, L. S.
Grimanis, A. P., and Souliotis, A. G. Rapid
determination of arsenic in copper and brass by neutron-activation analysis, 549.

See also Souliotis, A. G.

Grimshaw, H. M. See Quarmby, C. Grinstead, R. R., and Snider, S. Curcumin method for low level boron determination, 532.

Gross, D. Review of Lederer's Chromatographic Reviews. Vol. 8, 783.

Guinn, V. P. See Hansen, N. J. Gupta, S. D. See Das Gupta, S.

### Ħ

Haase, H. W. See Fresenius, W. Habgood, H. W. See Harris, W. E.

Hale, D. K. Review of Trémillon's Séparations par les Résines Échangeuses d'Ions, 69.

Halpern, Y., Houminer, Y., and Patai, S. Determination of silvl derivatives of glucose by gas - liquid chromatography with inert internal standards, 714.

Hamence, J. H. Review of Williams' Oils, Fats and Fatty Foods. 4th Edn., 408.

Hamer, A. Review of Szymanski's Interpreted Infrared Spectra. Vol. 2, 473.

Hamilton, E. I., Minski, M. J., and Cleary, J. J. Loss of elements during decomposition of biological materials with special reference to arsenic, sodium, strontium and zinc, 257.

Hammond, P. W. See Cooper, P. J. Han, K. W. Determining terminal hydroxyl groups in polyethyleneoxy compounds, 316.

Hansen, N. J. Solid State Charged Particle Detectors. V. P. Guinn. Advances in Neutron Activation Analysis. D. Lichtman and R. B. McQuistan. Slow Electron Interaction with Adsorbed Gases. J. E. Strain. Use of Neutron Generators in Activation Analysis. Progress in Nuclear Energy, Series IX, Analytical Chemistry, Vol. 4, Parts 1, 2 and 3. (Review), 721.

Hardwick, A. J. See Stanton, R. E. Harris, W. E., and Habgood, H. W. Programmed Temperature Gas Chromatography. (Review),

Harrison, S. Determination of small amounts of

formaldehyde in acetaldehyde, 773.

Hartley, F. R., and Inglis, A. S. Determination of aluminium in wool by atomic-absorption spectroscopy, 622.

Hartshorne, N. H. Review of El-Hinnawi's Methods in Chemical and Mineral Microscopy, 472.

Harvey, P. J. J. Translator of Yatsimirs Kinetic Methods of Analysis. (Review), 138. Yatsimirskii's Haynes, B. Qualitative Organic Analysis. 2nd Edn. (Review), 275.

Haywood, P. E., Horner, M. W., and Rylance, H. J. Thin-layer chromatography of neutral drugs, 711. Heathcote, J. G., and Washington, R. J. Determination of small amounts of amino-acids, 627.

Heaysman, L. T., Walker, E. A., and Lewis, D. T.
Application of gas chromatography to examination of constituents of Cannabis sativa L., 450.

Hecht, F., and Zacherl, M. K. Handbuch der mikrochemischen Methoden. Vol. IV. H. Malissa. (Review), 657.

Heinekey, D. M. See Cropper, F. R.

Heinrich, K. F. J. See McKinley, T. D.

Herringshaw, J. F. Review of Willard, Merritt and

Dean's Instrumental Methods of Analysis. 4th Edn., 140.

See also Elwell, W. T.

Hill, A. C., Akhtar, M., Mumtaz, M., and Osmani, J. A. Determination of malathion in formulations by a method based on cleavage by alkali, 496.

Hill, A. G. Review of Perrin, Armarego and Perrin's Purification of Laboratory Chemicals, 537. **Hills, G. J.** Volarography 1964. Vols. 1 and 2. (Review), 276.

Hingle, D. N., Kirkbright, G. F., and West, T. S. Determination of mercury by atomic-absorption spectroscopy in air - acetylene flame, 759.

Holman, R. T. Progress in Chemistry of Fats and Other Lipids. Vol. 9. Part 1. (Review), 139. Holmes, G. M. Review of Handbuch für das Eisenhüttenlaboratorium, Vol. 2, 274.

Hoodless, R. A. See Cooper, P. J.
Horner, M. W. See Haywood, P. E.
Houghton, J. T., and Smith, S. D. Infra-Red
Physics. (Review), 474.
Houminer, Y. See Halpern, Y.

Howell, M. G., Kende, A. S., and Webb, J. S. Formula Index to NMR Literature Data. Vol. 2.

(Review), 410. Hunt, E. C. Thin-layer chromatographic determination of "quassin" in cosmetics, 36.

Hutton, R. C., and Stephen, W. I. Consecutive determinations of perchlorate and nitrate ions, Consecutive

# I

Ibbett, R. D. Determining strontium-90 in environmental materials by ion exchange and preferential chelation techniques, 417.

Inglis, A. S. See Hartley, F. R. Irvine, W. J. See Smith, G. A. L.

# J

Jander, G. See Fresenius, W. Janes, N. F. See King, H. G. C. Jeater, H. W. See Archer, E. E.

Jeffery, P. G., and Bakes, J. M. Determining fluorine in fluorite ores and concentrates by isotope-source fast-neutron activation analysis, 151.

and Kerr, G. O. Determination of vanadium in silicate rocks and minerals with N-benzoyl-otolylhydroxylamine, 763.

See also Gregory, G. R. E. C.

Johannesson, J. K. Isotopic-dilution analysis with modified substoicheiometric residue method for carbonate and sulphate, 766.

Johnsen, R. E. See Starr, R. I.

Johnson, R. C. Introductory Descriptive Chemistry. (Review), 659.

Jones, A. G. Review of Samuel's Industrial Chemistry—Organic Advanced Level, 344.

Jones, J. I. M. Review of Vogel's Elementary

Practical Organic Chemistry. Parts 1 and 2. 2nd Edn., 409. Jones, T. K. See Ferguson, F. D.

### K

Kakáč, B., and Vejdělek, Z. J. Handbuch der Kolorimetrie. Vol. III. (Review), 346.
Karawya, M. S., Balbaa, S. I., Girgis, A. N., and Youssef, N. Z. in capsicum fruits, 581.

Kauffman, G. B. Alfred Werner Founder of Coordination Chemistry. (Review), 202. Kellett, E. A. Review of Mallett, Fay and Mueller's

Advances in X-Ray Analysis. Vol. 9, 277.

Kende, A. S. See Howell, M. G. Kerr, G. O. See Jeffery, P. G.

King, H. G. C., and Pruden, G. Component of commercial Titan vellow most reactive towards magnesium: isolation and use in determining magnesium in silicate minerals, 83.

Pruden, G., and Janes, N. F. Synthesis of active component of commercial Titan yellow for use in

determination of magnesium, 695.

Kirkbright, G. F., Smith, A. M., and West, T. S. Indirect sequential determination of phosphorus and silicon by atomic-absorption spectrophotometry, 411.

See also Hingle, D. N.

Kleinman, M. T. See Bosca, Kober, G. See Kurz, E. Kraft, G. See Fresenius, W. Kraft, G. Volumetric determination

Lack, M. D., and Frost, B. E. Pre-reaction attachment for Karl Fischer cell. 396.

Lancaster, G. Electron Spin Resonance in Semiconductors. (Review), 203.

Latham, J. L., and Lawley, E. C. Precise location of conductimetric end-points by simplified least squares technique, 698.

Lawley, E. C. See Latham, J. L. Leahy, J. S., and Taylor, T. Gas-chromatographic determination of residues of Picloram, 371.

Lederer, M. Chromatographic Reviews. Vol. 8. (Review), 783.

Leton, G. B. See Bassett, J.
Lever, F. M. Review of Butts and Coxe's Silver,
Economics, Metallurgy and Use, 722.

Lewis, C. L., Ott, W. L., and Sine, N. M. Analysis of Nickel. (Review), 204. Lewis, D. T. See Heaysman, L. T.; Wilson, A. D. Lichtman, D. See Hansen, N. J.

Litchfield, M. H. Automated analysis of nitrite and nitrate in blood, 132.

Lloyd, G. A., and Bell, G. J. Mobile laboratory methods for determination of pesticides in air. III. Mevinphos, 578.

Lockyer, R. Review of Mavrodineanu's Bibliography on Flame Spectroscopy Analytical Applications 1800-1966, 722.

Lumrys, R. W. See Reynolds, W. L. Lundquist, F. Methods of Forensic Science. Vols. I and II. (Review), 69.

McCartney, E. R. See Prokopovich, S. A.

McCutcheon, G. J. See Cooper, P. J.

Macdonald, A. M. G. Review of Fresenius and
Jander's Handbuch der analytischen Chemie.
Part 3. Vol. ΙVαβ. G. Kraft, 410; Vol. 1Bβ.
H. W. Haase, 721; Review of XXth International Congress of Pure and Applied Chemistry, 538.

McGee, T. See Boswell, G. G. J.

McKetta, J. J., jun. See Mark, H. F. McKinley, T. D., Heinrich, K. F. J., and Wittry, D. B. Electron Microprobe. (Review), 68.

McLachlan, T. Review of Chemistry, Medicine and Nutrition, 600.

McLafferty, F. W. See Reilley, C. N.

McMillan, J. W. Radioactive tracer methods in inorganic trace analysis: recent advances: review,

McQuistan, R. B. See Hansen, N. J. Maehly, A. C. Biochemical Preparations. Vol. 11. (Review), 205.

Mahadevan, E. G. Dimethyl sulphoxide as solvent for rapid isotopic analysis of water by infrared spectrometry, 717.

Malissa, H. Handbuch der mikrochemischen Vol. IV. Edited by F. Hecht and Methoden. M. K. Zacherl. (Review), 657.

Mallett, G. R., Fay, M., and Mueller, W. M. Advances in X-Ray Analysis. Vol. 9. (Review), 277.

Manning, D. C. See Capacho-Delgado, L. Marinković, M. D., and Antić-Jovanović, A. M. Spectrographic determination of beryllium in minerals with gas-stabilised arc, 645.

Mark, H. F., McKetta, J. J., jun., Othmer, D. F., and Standen, A. Kirk-Othmer Encyclopedia of Chemical Technology. Vol. 9. 2nd Edn. (Review), 273; Vol. 10, 658; Vol. 11, 719.

Marshall, B. S. See Christie, A. A. Martin, J. See Archer, E. E.

Maunder, M. J. de F. See Cooper, P. J.

Mavrodineanu, R. Bibliography on Flame Spectroscopy Analytical Applications 1800–1966. (Review), 722.

Meinke, W. W., and Scribner, B. F. Trace Characterization. (Review), 784. Merrer, R. J. See Stock, J. T.

Merritt, L. L., jun. See Willard, H. H.
Mikes, O. Laboratory Handbook of Chromatographic Methods. (Review), 599.
Milner, G. W. C., Wood, A. J., Weldrick, G., and
Phillips, G. Determining plutonium in refractory materials by electrometric methods after dissolution by fusion with ammonium hydrogen sulphate,

Milton, R. F. Review of Kakáč and Vejdělek's Handbuch der Kolorimetrie. Vol. III, 346.

Minski, M. J. See Hamilton, E. I. Moody, B. J. Review of Johnson's Introductory Descriptive Chemistry, 659; Review of Schwarz and Szekely's Simplified Analysis of Hydroponic Solutions, 786.

Moore, N. W. Pesticides in the Environment and their Effects on Wildlife. (Review), 142.

Mortimer, C. E. Chemistry. (Review), 787.

Morton, R. A. Review of Glick's Methods of Biochemical Analysis. Vol. 14, 343.

Moss, M. S. Review of Lundquist's Methods of Forensic Science. Vols. I and II; Curry's Methods of Forensic Science. Vols. III and IV, 69.

Mueller, W. M. See Mallett, G. R. Mulay, L. N. Magnetic Susceptibility. (Review),

Mumtaz, M. See Hill, A. C. Myles, D. See Yuen, S. H.

Neumann, W. P. Die Organische Chemie des Zinns. (Review), 788.

Newman, E. J. See Cartwright, P. F. S. Nichols, P. N. R. See Andrew, T. R.

Nickless, G. Review of Boumans' Spectrochemical Excitation, 599; Review Laboratory Handbook of Chromatographic Methods,

- See also Anderson, R. G.

Olds, F. M. W., Patrick, J. W., and Shaw, F. H. Determining sulphur in carbons and cokes by gas chromatography, 54.

Orrell, K. G. Review of Howell, Kende and Webb's Formula Index to NMR Literature Data. Vol. 2. 410.

Osmani, J. A. See Hill, A. C. Othmer, D. F. See Mark, H. F. Ott, W. L. See Lewis, C. L.

Palframan, J. F., and Walker, E. A. Techniques in gas chromatography. I. Choice of solid supports: review, 71; Explanatory note, 536; Porous polymer beads in the gas-chromatographic separation of glycols and glycol ethers, 535.

Patal, S. See Halpern, Y.
Patel, V. J. See Smith, J. W. G.
Patrick, J. W. See Olds, F. M. W.
Peake, D. M. Review of Pungor's Flame Photometry Theory, 720.

Peck, P. F. See Pierce, T. B.

Penketh, G. E. See Bradley, M. P. T.
Pennock, J. F. See Whittle, K. J.
Perrett, B. S. See Taylor, B. L.
Perrin, D. D., Armarego, W. L. F., and Perrin, D. R.

Purification of Laboratory Chemicals. (Review),

Perrin, D. R. See Perrin, D. D. Phillips, G. See Milner, G. W. C.

Pierce, T. B. Review of Modern Trends in Activation Analysis, 408; Review of Hansen's Solid State Charged Particle Detectors; Guinn's Advances in Neutron Activation Analysis; Lichtman and McQuistan's Slow Electron Interaction with Adsorbed Gases; Strain's Use of Neutron Generators in Activation Analysis, 721.

- Peck, P. F., and Cuff, D. R. A. Analytical applications of 0.5-MeV Cockcroft - Walton set based on measurement of prompt y-radiation: Γ-radiation emitted during proton reactions, 143.

See also Coleman, R. F. Pike, K. A., and Freshwater, D. C. Determining vapour - liquid equilibrium for multi-component

systems, 268. Plessis, T. A. du. See Basson, R. A.

Poluektov, N. S. Techniques in Flame Photometric Analysis. Translated by C. N. Turton and T. I. Turton. (Review), 204.

Prakash, S., and Rawat, N. S. Chemical Study of Some Indian Archaeological Antiquities. (Review), 203.

Premi, P. R., and Cornfield, A. H. Use of iron(II) sulphate for reduction of nitrate to ammonia in microdiffusion method for determining nitrate in soil extracts, 196.

Price, J. W. Review of Neumann's Die Organische Chemie des Zinns, 788.

Priscott, B. H. Gas chromatograph for determination of fatty acids, 57; Determining traces of chloride by evolution - conductimetric procedure, 61.

Pritchard, D. T. Spectrophotometric determination of aluminium in soil extracts with xylenol orange, 103; All-plastic suction funnel, 199

Prokopovich, S. A., and McCartney, E. R. X-ray spectrographic determination of barium, 253.

Pruden, G. See King, H. G. C. Pryce, J. D. Determining glucose in blood or plasma, 198.

Pugh, H. Review of Poluektov's Techniques in Flame Photometric Analysis, 204; Review of Beamish's Analytical Chemistry of the Noble Metals, 598.

Pungor, E. Flame Photometry Theory. Translation Editor R. A. Chalmers. (Review), 720. tion Editor R. A. Chalmers. (Review), 720.

Pyatnitskii, I. V. Analytical Chemistry of Cobalt.

(Review), 201.

# Q

Quarmby, C., and Grimshaw, H. M. Determining iron in plant material with application of automatic analysis to colorimetric procedure, 305.

Rawat, N. S. See Prakash, S. Redman, H. N. Weighing bottle for weighing hygroscopic materials, 584.

Reed, R. A. See Bennett, H.

Reid, V. W. See Brammer, J. A Reilley, C. N., and McLafferty, F. W. Advances in Analytical Chemistry and Instrumentation. Vol. (Review), 140.

Reilly, D. A. Field determination of 4,4'-diisocyanatodiphenylmethane in air, 513; Determination of 4-aminobiphenyl in refined aniline, 642.

Rexer, E. Reinststoffprobleme. Vols. I and II. (Review), 661.

(Review), 661.

Reynolds, W. L., and Lumrys, R. W. Mechanisms of Electron Transfer. (Review), 661.

Ritchie, M. Chemical Kinetics in Homogeneous Systems. (Review), 139.

Robinson, F. A. Review of Biochemical Preparations. Vol. 11, 205.

Rossotti, F. J. C. Review of Fleck's Equilibria in Solution, 141.

Rylance, H. J. See Haywood, P. E.

Sahasranaman, S. See Awasthi, S. P. Samuel, D. M. Industrial Chemistry—Organic

Advanced Level. (Review), 344. Sárdi, A., and Tomesányi, A. Fast-neutron activa-

tion analysis of silicon in sputum, 529.

Sawyer, R. Determination of dialkyltin stabilisers in aqueous extracts from PVC and other plastics,

Schwarz, M., and Szekely, R. Simplified Analysis of Hydroponic Solutions. (Review), 786. Scribner, B. F. See Meinke, W. W.

Sergeant, G. A. See Evans, W. H. Shaw, F. H. See Olds, F. M. W. Sherlock, D. R. See Wilson, J. N.

Simpson, J. R. See Curthoys, G.

Sine, N. M. See Lewis, C. L.

Sinha, B. C., and Das Gupta, S. Direct complexometric determination of zirconium(IV) in relation to polymerisation, 558.

Smart, N. A. Modification of Miles' method for determining azinphos-methyl residues in crops,

Smith, A. M. See Kirkbright, G. F. Smith, G. A. L., Sullivan, P. J., and Irvine, W. J. Determining oxidisable nitrogen oxides in cigarette smoke, 456.

Smith. G. S. Review of Berezkin's Analiticheskaya

Reaktsionnaya Gazovaya Khromatografiya, 786. Smith, J. W. G., Grey, G. E. de, and Patel, V. J. Spectrophotometric determination of ampicillin, 247.

Smith, R. See Dagnall, R. M.

Smith, S. D. See Houghton, J. T.

Snelson, F. L., Ellis, W. R., and Vilkauls, J. Direct injection enthalpimetry in routine determination of hydroxyl value of alkylphenols, 264. Snider, S. See Grinstead, R. R.

Souliotis, A. G., Belkas, E. P., and Grimanis, A. P. Determining traces of magnesium, strontium and nickel in lake-water by neutron-activation analysis, 300.

See also Grimanis, A. P.

Stagg, H. E. Review of Gray's Laboratory Handbook of Toxic Agents. 2nd Edn., 67; Review of Harris and Habgood's Programmed Temperature Gas Chromatography, 275.

Standen, A. See Mark, H. F. Stanford, F. G. Separating mustard gas and hydroxy analogues by thin-layer chromatography,

Stanton, R. E., and Hardwick, A. J. Colorimetric determination of molybdenum in soils and sediments by zinc dithiol, 387.

Starr, R. I., and Johnsen, R. E. Cleaning electroncapture detectors of concentric-tube design, 657. Stepanov, B. I. Editor of Zhbankov's Infrared Spectra of Cellulose and Its Derivatives. Translated by A. B. Densham. (Review), 345.

Stephen, W. I. Review of Feigl and Anger's Spot Tests in Organic Analysis. Translated by R. E. Oesper. 7th English Edn., 206; Review of Méthodes d'Analyse Cetama—1966, 788. See also Hutton, R. C.

Stewart, M. F. See Dallas, M. S. J. Stewart, R. Investigation of Organic Reactions. (Review), 206.

Stock, J. T., and Merrer, R. J. Amperometric titration of submillinormal concentrations of hexacyanoferrate(III) with mercury(I) perchlorate, 98.

Strain, J. E. See Hansen, N. J.

Streatfield, E. L. Review of Dwyer's Contamination Analysis and Control, 784.

Strizovic, A., and Caldwell, J. A. Effect of impurity in dichloroethane solvent on determination of boron with methylene blue, 200.

Stuffins, C. B. Determining phosphate and calcium

in feeding stuffs, 107; Erratum, 278. Suhr, H. Anwendungen der Kernmagnetischen Resonanz in der Organischen Chemie. (Review).

Sullivan, P. J. See Smith, G. A. L. Sundaresan, M. See Awasthi, S. P. Sutcliffe, L. H. See Emsley, J. W. Swithenbank, J. J. See Vaughan, G. A. Szekely, E. See Schwarz, M.

Szymanski, H. A. Interpreted Infrared Spectra. Vol. 2. (Review), 473; Systematic Approach to Interpretation of Infrared Spectra. (Review), 785.

Tatton, J. O'G. Review of Moore's Pesticides in the Environment and their Effects on Wildlife, 142.

Taylor, A. See Fishwick, F. B.
 Taylor, B. L., and Perrett, B. S. Determining nitrogen in uranium nitrides, 64.

Taylor, G. R. Review of Dobos' Electronic Electrochemical Measuring Instruments. Translated by T. Damokos and Z. Erdökürty, 277.

Taylor, T. See Leahy, J. S. Thompson, K. C. See Dagnall, R. M. Thomson, J. See Abbott, D. C. Tobias, C. W. See Delahay, P.

Tomcsányi, A. See Sárdi, A. Tompsett, S. L. Detection of ephedrine in biological material by ultraviolet spectrophotometry, 534.

Townshend, A. Review of Elwell and Gidley's Atomic-absorption Spectrophotometry. 2nd (Re-(Review), 66; Review of Hecht and vised) Edn. Zacherl's Handbuch der mikrochemischen Methoden.

Vol. IV. Malissa, 657. **Trémillon, B.** Séparations par les Résines Échangeuses d'Ions. (Review), 69.

Turton, C. N., and Turton, T. I. Translators of Poluektov's Techniques in Flame Photometric Analysis. (Review), 204. Turton, T. I. See Turton, C. N.

Vaughan, G. A., and Swithenbank, J. J. Enthalpimetric titration of basic nitrogen compounds, 364. Vejdělek, Z. J. See Kakáč, B. Vilkauls, J. See Snelson, F. L. Visser, J. See Claassen, A.

Vogel, A. I. Elementary Practical Organic Chemistry. Parts 1 and 2. (Review), 409.

- See also Bassett, J.

Walker, E. A. See Bunting, W.; Heaysman, L. T.; Palframan, J. F.

Washington, R. J. See Heathcote, J. G.

Webb, J. S. See Howell, M. G.
Webb, K. S. See Abbott, D. C.
Welcher, F. J. Standard Methods of Chemical
Analysis. 6th Edn. Vol. III, Parts A and B. (Review), 201.

Weldrick, G. See Milner, G. W. C. Welti, D. See Fowlis, I. A.

Werner, A. E. A. Review of Prakash and Rawat's Chemical Study of Some Indian Archaeological Antiquities, 203.

West, T. S. Review of Edisbury's Practical Hints

on Absorption Spectrometry, 138.

See also Ani, M. J. Al.; Dagnall, R. M.; Hingle, D. N.; Kirkbright, G. F. Westwell, A. See Cropper, F. R.

Wheatley, P. J. See Zeiss, H. Whiffen, D. H. Review of Assenheim's Introduction to Electron Spin Resonance, 203; Review of Lancaster's Electron Spin Resonance in Semiconductors, 203.

Whitehurst, J. S. Review of Suhr's Anwendungen der Kernmagnetischen Resonanz in der Organischen

Chemie, 474.

Whittem, R. N. See Champion, K. P. Whittle, K. J., and Pennock, J. F. Examination of tocopherols by two-dimensional thin-layer chromatography and subsequent colorimetric determination, 423.

Willard, H. H., Merritt, L. L., jun., and Dean, J. A. Instrumental Methods of Analysis. 4th Edn.

(Review), 140.

Williams, A. I. Determining niobium in metals and alloys, 43.

Williams. K. A. Review of Armet's Modern Electroplating Laboratory Manual, 68; Review of Delory's Photoelectric Colorimetry in Clinical Biochemistry, 69; Review of Holman's Progress in Chemistry of Fats and Other Lipids. Vol. 9. Part 1, 139; Oils, Fats and Fatty Foods. Their Practical Examination. 4th Edn. (Review),

Wilson, A. D., and Lewis, D. T. Determining arsenic by uranyl salt method. II. Radiometric determination of microgram amounts of arsenic by filter-spot technique, 260.

Wilson, B. J. Radiochemical Manual. 2nd Edn.

(Review), 205.

Wilson, D. W. See Cartwright, P. F. S.

Wilson, H. N., and Duff, G. M. S. Industrial gas analysis: literature review, 723.

Wilson, J. N., Franks, M. C., and Sherlock, D. R. Separation of dieldrin from pentachlorophenol, 782.

Winkler, H. J. S. See Zeiss, H.
Withington, D. F. Determination of butter fat in
margarine fat by transesterification and gas margarine lat by transcatterine and gas chromatography, 705. Wittry, D. B. See McKinley, T. D. Wood, A. J. See Milner, G. W. C. Wottz, H. H., and Clark, S. J. Gas Chromatography

in Analysis of Steroid Hormones. (Review), 345.

Yatsimirskii, K. B. Kinetic Methods of Analysis. Translated by P. J. J. Harvey. (Review), 138. Young, P. See Dagnall, R. M.

Youssef. N. Z. See Karawya, M. S.

Ragness, J. E., and Myles, D. Spectro-7. 5 aeous herbicide formulations, 375.

Zacherl, M. K. See Hecht, F. Zeiss, H., Wheatley, P. J., and Winkler, H. J. S. Benzenoid - Metal Complexes. (Review), 537. Zhbankov, R. G. Infrared Spectra of Cellulose and

its Derivatives. Edited by B. I. Stepanov. Translated by A. B. Densham. (Review), 345.

# INDEX TO SUBJECTS

A

Academy of Sciences of the U.S.S.R.: XXth International Congress of Pure and Applied Chemistry. IUPAC and —. (Review), 538.

Acetaldehyde: Determination of small amounts of

formaldehyde in ——. Harrison, 773.

Acids: Progress in the Chemistry of Fats and Other Lipids. Vol. 9. Polyunsaturated ——. Part 1. Holman, 139. See also Fatty acids.

Activation Analysis: See Analysis.

Adulteration: Detection of — of fruit juices by thin-layer chromatography. Alvarez, 176. See also Contamination.

Air: Field determination of 4,4'-di-isocyanato-diphenylmethane in ——. Reilly, 513.

Field determination of organomercurial vapours in ——. Christie, Dunsdon and Marshall, 185; Erratum, 538.

Mobile laboratory methods for determination of pesticides in ——. III. Mevinphos. Lloyd and Bell, 578.

Alanine: Determination of small amounts of aminoacids. Heathcote and Washington, 627.

Alcohols: Determination of tertiary hydroxyl groups. Bradley and Penketh, 701.

Aldehydes: Qualitative analysis of complex carbonyl mixtures by thin-layer chromatography. Dhont and Dijkman, 431.

Aldrin: Determination of chlorinated pesticides in aqueous emulsions. Cooper, Andrews and Hammond, 493.

Alkylphenols: Direct injection enthalpimetry in routine determination of hydroxyl value of —. Snelson, Ellis and Vilkauls, 264.

Aloes: Chemical assay of ——. Pharmaceutical Society and Society for Analytical Chemistry, 593.

Aluminium: Comparative elemental analyses of standard plant material. Bowen, 124.

Complexometric determination of —— and total iron in silicate and other rock material. Evans, 685; Erratum, 788.

Determination by atomic-absorption spectroscopy of elements, including silicon, — and titanium, in cement. Capacho-Delgado and Manning, 553.

Determination of — in wool by atomicabsorption spectroscopy. Hartley and Inglis, 622

Determination of — with 8-hydroxyquinoline. I. Precipitation in acetate-buffered solution. Claassen and Bastings, 614; II. Precipitation in ammoniacal cyanide - EDTA solution. Claassen, Bastings and Visser, 618.

8-Hydroxyquinoline as gravimetric reagent for
—. Chalmers and Basit, 680.

Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark, Duncan and Graham, 347.

Spectrophotometric determination of —— in soil extracts with xylenol orange. Pritchard, 103.

Aluminosilicates: Coagulation method for determination of silica (without dehydration) in

mination of silica (without dehydration) in silicate materials. Bennett and Reed, 466. Amethocaine: Assay of organic bases in aqueous eye-drops. Cooper and Hammond, 180.

Amides: Enthalpimetric titration of basic nitrogen compounds. Vaughan and Swithenbank, 364. Amines: Enthalpimetric titration of basic nitrogen compounds. Vaughan and Swithenbank, 364.

Amino-acids: Determination of small amounts of —. Heathcote and Washington, 627.

4-Aminobiphenyl: Determination of —— in refined aniline. Reilly, 642.

Amidopyrine: Thin-layer chromatography of neutral drugs. Haywood, Horner and Rylance, 711.

Ammonium hydrogen sulphate: Determination of plutonium in refractory materials by electrometric methods after dissolution by fusion with ——. Milner, Wood, Weldrick and Phillips, 239.

Ampicillin: Spectrophotometric determination of —. Smith, Grey and Patel, 247.

Analysis: Activation —: review. Coleman and Pierce, 1.

Advances in Analytical Chemistry and Instrumentation. Vol. 5. Reilley and McLafferty. (Review), 140.

Advances in X-Ray —. Vol. 9. Mallett, Fay and Mueller. (Review), 277.

Analytical Chemistry of the Noble Metals. Beamish. (Review), 598.

Bibliography on Flame Spectroscopy Analytical Applications 1800–1966. Mavrodineanu. (Review), 722.

Elementary Practical Organic Chemistry. Parts 1 and 2. Vogel. 2nd Edn. (Review), 409. Gamma-activation ——: review. Baker, 601.

Handbuch der analytischen Chemie. Fresenius and Jander. Part 3. Vol. IVαβ. Kraft. (Review), 410; Vol. IBβ. Haase, 721.
Handbuch der Kolorimetrie. Vol. III. Kakáč

Handbuch der Kolorimetrie. Vol. III. Kakáč and Vejdělek. (Review), 346. Handbuch der mikrochemischen Methoden.

Handbuch der mikrochemischen Methoden. Hecht and Zacherl. Vol. IV. Malissa. (Review), 657.

Heterocyclic azo dyestuffs in analytical chemistry: review. Anderson and Nickless, 207; Erratum, 538.

Industrial gas ——: literature review. Wilson and Duff, 723.

Instrumental Methods in Analytical Chemistry, Their Principles and Practice. Vol. 1. Donbrow. (Review), 660.

Instrumental Methods of —. Willard, Merritt and Dean. 4th Edn. (Review), 140. Kinetic Methods of —. Yatsimirskii. Trans-

lated by Harvey. (Review), 138.

Loss of elements during decomposition of bio-

Loss of elements during decomposition of biological materials with special reference to arsenic, sodium, strontium and zinc. Hamilton, Minski and Cleary, 257.

Méthodes d'Analyse Cetama—1966. (Review), 788.

Modern Trends in Activation ——. (Review),

Photoelectric Colorimetry in Clinical Biochemistry. Delory. (Review), 69.

Precise location of conductimetric end-points by simplified least squares technique. Latham and Lawley, 698.

and Lawley, 698.

Qualitative Organic ——. Haynes. 2nd Edn. (Review), 275.

Radioactive tracer methods in inorganic trace —: recent advances: review. McMillan, 539.

Recovery of trace elements after oxidation of organic material with 50 per cent. hydrogen peroxide. Down and Gorsuch, 398.

Analysis—continued

Séparations par les Résines Échangeuses d'Ions.

Trémillon. (Review), 69.

Solid State Charged Particle Detectors. Hansen. Advances in Neutron Activation -Guinn. Slow Electron Interaction with Adsorbed Gases. Lichtman and McQuistan. Use of Neutron Generators in Activation --. Strain. Progress in Nuclear Energy, Series IX. Vol. 4. Parts 1, 2 and 3. (Review), 721.

Spot Tests in Organic ---. Feigl and Anger. Translated by Oesper. 7th English Edn.

(Review), 206.

Standard Methods of Chemical ----. Vol. III. Parts A and B. Welcher. 6th Edn. (Review),

Techniques in Flame Photometric -Poluektov. Translated by Turton and Turton. (Review), 204.

Trace Characterisation-Chemical and Physical. Meinke and Scribner. (Review), 784.

Use of 50 per cent. hydrogen peroxide for destruction of organic matter. Society for Analytical Chemistry, Analytical Methods Committee, Metallic Impurities in Organic Matter Sub-Committee, 403.

Vacuum Microbalance Techniques. Vol. 5. Behrndt. (Review), 410.

Zweites Kolloquium uber metallkundliche

Analyse. (Review), 662. Aniline: Determination of 4-aminobiphenyl in

Reilly, 642.

Antimony: Determining --. cadmium. cerium. iridium and silver in biological material by radioactivation. Bowen, 118.

Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark,

Duncan and Graham, 347.

Antimony-124: Recovery of trace elements after oxidation of organic material with 50 per cent. hydrogen peroxide. Down and Gorsuch, 398.

Antiquities: Chemical Study of Some Indian Archaeological ——. Prakash and Rawat.

(Review), 203.

Apparatus: Accurate metering of gas flow for pyrolysis experiments in controlled atmosphere (thermogravimetric balance). Bassett and Betts, 653.

Advances in Analytical Chemistry and Instrumentation. Vol. 5. Reilley and McLafferty.

(Review), 140.

All-plastic suction funnel. Pritchard, 199. Automated analysis of nitrite and nitrate in

blood. Litchfield, 132.

Collection of fractions separated by gas - liquid chromatography. II. Direct transfer of fraction from trap to silver chloride infrared cell or nuclear magnetic resonance spherical microcell. Fowlis and Welti, 639.

Determination of chlorinated pesticides in aqueous emulsions (extraction assembly). Cooper,

Andrews and Hammond, 493.

Determination of fluorine in fluorite ores and concentrates by isotope-source fast-neutron activation analysis. Jeffery and Bakes, 151.

Determination of oxidisable nitrogen oxides in cigarette smoke (trapping system). Smith, Sullivan and Irvine, 456.

Determination of small amounts of amino-acids (elution ----). Heathcote and Washington, 627. Determination of small amounts of fluorine in

rocks and minerals (distillation ----). Evans and Sergeant, 690.

Apparatus—continued

Determination of total organic matter (carbon content) in aqueous media. I. Organic matter in aqueous plant streams. Cropper, Heinekey and Westwell, 436; II. Involatile organic matter in de-mineralised water, 443.

Determination of vapour - liquid equilibrium for multi-component systems. Pike and Fresh-

water, 268.

Determination of water in organic liquids.

Archer, Jeater and Martin, 524.

Determining dicumyl peroxide in polystyrene materials (—— for reacting dicumyl peroxide with sodium iodide). Brammer, Frost and

Device for transferring gases evolved at low pressure to gas chromatograph. Coe, 199.

Direct injection enthalpimetry in routine determination of hydroxyl value of alkylphenols. Snelson, Ellis and Vilkauls, 264.

Electronic Electrochemical Measuring Instru-ments. Dobos. Translated by Damokos and Erdökürty. (Review), 277.

Field determination of 4,4'-di-isocyanatodi-phenylmethane in air (all-glass absorber). Reilly, 513.

Field determination of organomercurial vapours in air. Christie, Dunsdon and Marshall, 185;

Erratum, 538. Gas chromatograph for determining fatty acids. Priscott, 57.

Methods of Analysis. Willard, Instrumental Merritt and Dean. 4th Edn. (Review), 140.

Preparation of analysis samples of hard materials with boron carbide mortar. Boulton and Eardley, 271.

Preparation of metal halide - mercury microwaveexcited electrodeless discharge tubes as spectralline sources. Ani, Dagnall and West, 597. Pre-reaction attachment for Karl Fischer cell.

Lack and Frost, 396.

Recovery of trace elements after oxidation of organic material with 50 per cent. hydrogen peroxide. Down and Gorsuch, 398.

Spectrographic determination of beryllium in minerals with gas-stabilised arc. Marinković and Antić-Jovanović, 645.

Weighing bottle for weighing hygroscopic materials. Redman, 584. Archaeology: Chemical Study of Some Indian

Archaeological Antiquities. Prakash Rawat. (Review), 203.

Arginine: Determination of small amounts of amino-acids. Heathcote and Washington, 627. Arsenic: Comparative elemental analyses of stand-

ard plant material. Bowen, 124.

- by uranyl salt method. Determination of -II. Radiometric determination of microgram amounts of ---by filter-spot technique. Wilson and Lewis, 260.

Determination of -- in copper and brass by neutron-activation analysis. Grimanis and

Souliotis, 549.

Loss of elements during decomposition of biological materials with special reference to sodium, strontium and zinc. Hamilton, Minski and Cleary, 257.

Arsenic-74: Recovery of trace elements after oxidation of organic material with 50 per cent. hydrogen peroxide. Down and Gorsuch, 398.

Aspartic acid: Determination of small amounts of amino-acids. Heathcote and Washington, 627.

Atropine: Assay of organic bases in aqueous eyedrops. Cooper and Hammond, 180.

AutoAnalyzer: Automated analysis of nitrite and nitrate in blood. Litchfield, 132.

Rapid determination of iron in plant material with application of automatic analysis to colorimetric procedure. Quarmby and Grimshaw, 305.

Azinphos-methyl: Modified Miles' method for - residues in crops. Smart, determining -

Thin-layer chromatographic screening test for organophosphorus pesticide residues. Abbott, Burridge, Thomson and Webb, 170.

Azo dyestuffs: Heterocyclic — in analytical Anderson and Nickless, chemistry: review. 207; Erratum, 538.

Balance: Accurate metering of gas flow for pyrolysis experiments in controlled atmosphere (thermogravimetric ——). Bassett and Betts, 653.

Barium: Comparative elemental analyses of standard plant material. Bowen, 124.

Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark, Duncan and Graham, 347.

X-ray spectrographic determination of -Prokopovich and McCartney, 253.

Bemegride: Thin-layer chromatography of neutral drugs. Haywood, Horner and Rylance, 711. Benzocaine: Thin-layer chromatography of neutral

drugs. Haywood, Horner and Rylance, 711. N-Benzoyl-o-tolylhydroxylamine: Determination of vanadium in silicate rocks and minerals with

—. Jeffery and Kerr, 763.
Beryllium: Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate.

Bark, Duncan and Graham, 347. Spectrographic determination of in minerals with gas-stabilised arc. Marinković and Antić-Jovanović, 645.

Biochemistry: Biochemical Preparations. Vol. 11. Maehly. (Review), 205. Methods of Biochemical Analysis. Vol. 14.

Glick. (Review), 343.

Photoelectric Colorimetry in Clinical -Delory. (Review), 69.

Bismuth: Dioximes of large ring 1,2-diketones and applications to determination of --, nickel and palladium. Bassett, Leton and Vogel, 279.

Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark, Duncan and Graham, 347.

Bismuth-207: Recovery of trace elements after oxidation of organic material with 50 per cent. hydrogen peroxide. Down and Gorsuch, 598.

NN'-Bis-salicylidene-2,3-diaminobenzofuran: Spectrofluorimetric determination of magnesium with ---. Dagnall, Smith and West, 20.

Blood: Automated analysis of nitrite and nitrate in Litchfield, 132.

Determining glucose in — or plasma. Pryce,

Blood plasma: Determing glucose in blood or -Pryce, 198.

Blood serum: Detection of ephedrine in biological material by ultraviolet spectrophotometry. Tompsett, 534.

Book reviews: Armet. Modern Electroplating Laboratory Manual, 68.

Book reviews-continued

Introduction to Electron Spin Assenheim. Resonance, 203.

Analytical Chemistry of the Noble Beamish. Metals, 598.

Behrndt. Vacuum Microbalance Techniques. Vol. 5, 410.

Berezkin. Analiticheskaya Reaktsionnaya Gazovaya Khromatografiya, 786.

Bockris. Modern Aspects of Electrochemistry. No. 4, 660.

Boumans. Theory of Spectrochemical Excitation, 599.

Butts and Coxe. Silver, Economics, Metallurgy and Use, 722.

Curry. Methods of Forensic Science. Vols. III and IV, 69.

Delahay and Tobias. Advances in Electrochemistry and Electrochemical Engineering.

Delory. Photoelectric Colorimetry in Clinical Biochemistry, 69.

Dobos. Electronic Electrochemical Measuring Instruments, 277.

Donbrow. Instrumental Methods in Analytical Chemistry, Their Principles and Practice. 1.660.

Dwyer. Contamination Analysis and Control, 784

Edisbury. Practical Hints on Absorption Spectrometry, 138.

El-Hinnawi. Methods in Chemical and Mineral Microscopy, 472.

Elwell and Gidley. Atomic-absorption Spectrophotometry. 2nd (Revised) Edn., 66. Emsley, Feeney and Sutcliffe. Progress in

Nuclear Magnetic Resonance Spectroscopy. Vol. 1, 278; Vol. 2, 785.

Evans. Tritium and its Compounds, 472.

Feigl and Anger. Spot Tests in Organic Analysis. 7th English Edn., 206. Ferguson and Jones. The Phase Rule, 202.

Fleck. Equilibria in Solution, 141.

Fresenius and Jander. Handbuch der analytischen Chemie. Part 3. Vol. IVαβ. 410; Vol. 1B\u03c3, 721. Glick. Methods of Biochemical Analysis. Vol.

14, 343. Gray. Laboratory Handbook of Toxic Agents.

2nd Edn., 67. Harris and Habgood. Programmed Temperature

Gas Chromatography, 275. Haynes. Qualitative Organic Analysis. 2nd

Edn., 275. Hecht and Zacherl. Handbuch der mikro-chemischen Methoden. Vol. IV. Malissa, 657.

Holman. Progress in the Chemistry of Fats and Other Lipids. Vol. 9. Part 1, 139.

Houghton and Smith. Infra-Red Physics, 474. Howell, Kende and Webb. Formula Index to NMR Literature Data. Vol. 2, 410.

International Union of Pure and Applied Chemistry. Nomenclature of Organic Chemistry, 141; Erratum, 278.

Johnson. Introductory Descriptive Chemistry,

Kakáč and Vejdělek. Handbuch der Kolori-metrie. Vol. III, 346.

Kauffman. Alfred Werner Founder of Coordination Chemistry, 202.

Lancaster. Electron Spin Resonance in Semiconductors, 203.

Book reviews-continued

Lederer. Chromatographic Reviews. Vol. 8,

Lewis, Ott and Sine. Analysis of Nickel, 204. Lundquist. Methods of Forensic Science. Vols. I and II, 69. McKinley, Heinrich and Wittry. Electron Micro-

probe, 68.

Maehly. Biochemical Preparations. Vol. 11.

Mallett, Fay and Mueller. Advances in X-Ray Analysis. Vol. 9, 277.

Mark, McKetta, Othmer and Standen. Kirk-Othmer Encyclopedia of Chemical Technology. Vol. 9. 2nd Edn., 273; Vol. 10, 658; Vol. 11, 719

Mavrodineanu. Bibliography on Flame Spectroscopy Analytical Applications 1800–1966, 722. Meinke and Scribner. Trace Characterisation— Chemical and Physical, 784.

Mikes. Laboratory Handbook of Chromatographic Methods, 599.

Moore. Pesticides in the Environment and their Effects on Wildlife, 142.

Mortimer. Chemistry, 787

Mulay. Magnetic Susceptibility, 662.

Neumann. Die Organische Chemie des Zinns, Perrin, Armarego and Perrin. Purification of

Laboratory Chemicals, 537.
cluektov. Techniques in Flame Photometric Poluektov.

Analysis, 204. Prakash and Rawat. Chemical Study of Indian

Archaeological Antiquities, 203. Pungor. Flame Photometry Theory, 720.

Pyatnitskii. Analytical Chemistry of Cobalt, 201. Reilley and McLafferty. Advances in Analytical Chemistry and Instrumentation. Vol. 5, 140. Rexer. Reinststoffprobleme. Vols. I and II,

Reynolds and Lumrys. Mechanisms of Electron Transfer, 661.

Ritchie. Chemical Kinetics in Homogeneous Systems, 139.

Royal Institute of Chemistry. Chemistry, Medicine and Nutrition, 600.

Samuel. Industrial Chemistry, 344.

Schwarz and Szekely. Simplified Analysis of Hydroponic Solutions, 786. Stewart. Investigation of Organic Reactions,

206.

Suhr. Anwendungen der Kernmagnetischen Resonanz in der Organischen Chemie, 474.

Szymanski. Interpreted Infrared Spectra. Vol. 2, 473; Systematic Approach to Interpretation of Infrared Spectra, 785.

rémillon. Séparations Échangeuses d'Ions, 69. par les Résines Trémillon. Vogel. Elementary Practical Organic Chemistry.

Parts 1 and 2. 2nd Edn., 409.

Standard Methods Analysis. Vol. III, Parts A and B. 6th Edn.,

Willard, Merritt and Dean. Instrumental Methods of Analysis. 4th Edn., 140. Williams. Oils, Fats and Fatty Foods. 4th

Edn., 408.

Wilson. Radiochemical Manual. 2nd Edn., 205. Wotiz and Clark. Gas Chromatography in Analysis of Steroid Hormones, 345.

Yatsimirskii. Kinetic Methods of Analysis, 138. Zeiss, Wheatley and Winkler. Benzenoid-Metal Complexes, 537.

Book reviews—continued Zhbankov. Infrared Spectra of Cellulose and Its Derivatives, 345.

Analyse der Metalle. Vol. 1. 3rd Edn., 66. Handbuch für das Eisenhüttenlaboratorium. Vol. 2, 274.

XXth International Congress of Pure and Applied Chemistry, 538.

Méthodes d'Analyse Cetama-1966, 788.

Modern Trends in Activation Analysis, 408. Polarography 1964, 276.

Progress in Nuclear Energy, Series IX: Analytical Chemistry. Vol. 4. Parts 1, 2 and 3, 721. Zweites Kolloquium uber metallkundliche Ana-

lyse, 662. Boron: Comparative elemental analyses of standard plant material. Bowen, 124.

Determining in fertilisers. Brownlie and Godden, 47.

Effect of impurity in dichloroethane solvent on determination of - with methylene blue. Strizovic and Caldwell, 200.

Modified curcumin method for low level determination. Grinstead and Snider, 532.

Boron carbide: Preparation of analysis samples of hard materials with --- mortar. Boulton and Eardley, 271.

Brass: Determination of arsenic in copper and by neutron-activation analysis. Grimanis and Souliotis, 549.

British Pharmacopoeia Commission: Limit test for 4-chloroacetanilide in phenacetin and its preparations, 290.

Bromine: Comparative elemental analyses of standard plant material. Bowen, 124.

Bromvaletone: Thin-layer chromatography of neutral drugs. Haywood, Horner and Rylance. 711.

Butter fat: Determination of - in margarine fat by transesterification and gas chromatography. Withington, 705.

Cadmium: Determining antimony, —, cerium, iridium and silver in biological material by radioactivation. Bowen, 118.

thin-layer chromatography. Inorganic Chromatography of first row transition metals on thin layers of substrates impregnated with tributyl phosphate. Bark, Duncan and Graham,

Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark, Duncan and Graham, 347.

Cadmium-109: Recovery of trace elements after oxidation of organic material with 50 per cent. hydrogen peroxide. Down and Gorsuch, 398.

Caesium: Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark, Duncan and Graham, 347.

Caffeine: Thin-layer chromatography of neutral drugs. Haywood, Horner and Rylance, 711. Calcium: Comparative elemental analyses of stand-

ard plant material. Bowen, 124. - in biological samples by X-ray Determining fluorescence. Champion and Whittem, 112.

Determining phosphate and in feeding stuffs. Stuffins, 107; Erratum, 278.

Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark, Duncan and Graham, 347.

Cannabis sativa L .: Gas chromatography in examination of constituents of --. Heavsman. Walker and Lewis, 450.

Capsaicine: Micro-determination of -- in capsicum fruits. Karawya, Balbaa, Girgis and Youssef,

Capsicum: Micro-determination of capsaicine in - fruits. Karawya, Balbaa, Girgis and Youssef, 581.

Carbachol: Assay of organic bases in aqueous eyedrops. Cooper and Hammond, 180.

Carbon(s): Determination of total organic matter --- content) in aqueous media. I. Organic matter in aqueous plant streams. Cropper, Heinekey and Westwell, 436; II. Involatile organic matter in de-mineralised water, 443.

Determining sulphur in --- and cokes by gas chromatography. Olds, Patrick and Shaw, 54. Carbonate: Isotopic-dilution analysis with modified

substoicheiometric residue method for ---- and sulphate. Johannesson, 766.

Carbonyl compounds: Qualitative analysis of complex carbonyl mixtures by thin-layer chromatography. Dhont and Dijkman, 431.

Carbophenothion: Thin-layer chromatographic screening test for organophosphorus pesticide Abbott, Burridge, Thomson and Webb, 170.

Carbromal: Thin-layer chromatography of neutral drugs. Haywood, Horner and Rylance, 711.

Catechol violet colour reaction for tin(IV) sensitised by cetyltrimethylammonium bromide. Dagnall, West and Young, 27.

Cellulose: Infrared Spectra of -- and Its Derivatives. Zhbankov. Edited by Stepanov. Translated by Densham. (Review), 345.

Cellulose phosphate: Collecting uranium(VI) on

Bruce and Ashley, 137. Cement: Determination by atomic-absorption spectroscopy of elements, including silicon, alumiand titanium, in Delgado and Manning, 553.

Ceramics: Preparation of analysis samples of hard materials with boron carbide mortar. Boulton and Eardley, 271.

Cerium: Determining antimony, cadmium, —, iridium and silver in biological material by radioactivation. Bowen, 118.

Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark, Duncan and Graham, 347.

Cetama: See Commissariat a l'Énergie Atomique et Commission d'Etablissement des Méthodes d'Analyse.

Cetyltrimethylammonium bromide: Catechol violet colour reaction for tin(IV) sensitised by -Dagnall, West and Young, 27.

Chemicals: Purification of Laboratory -. Perrin.

Armarego and Perrin. (Review), 537.

Chemikerausschuss der Gesellschaft Deutscher Metallhütten und Bergleute: Analyse der

Metalle. Vol. I. (Review), 66. Chemikerausschuss des Vereins deutscher Eisenhüttenleute: Handbuch für das Eisenhüttenlaboratorium. Vol. 2. (Review), 274.

Chemistry: Alfred Werner Founder of Coordination Kauffman. (Review), 202.

Chemical Kinetics in Homogeneous Systems. Ritchie. (Review), 139.

Conceptual Approach. Mortimer. (Review), 787. Elementary Practical Organic ----. Parts I and 2. Vogel. 2nd Edn. (Review), 409.

Chemistry-continued

Industrial ----Organic Advanced Level. Samuel. (Review), 344.

XXth International Congress of Pure and Applied IUPAC and Academy of Sciences of the U.S.S.R. (Review), 538.

Investigation of Organic Reactions. Stewart. (Review), 206.

Introductory Descriptive ---. Johnson. (Review), 659.

Kirk-Othmer Encyclopedia of Chemical Tech-nology. Vol. 9. Mark, McKetta, Othmer and Standen. 2nd Edn. (Review), 273; Vol. 10, 658; Vol. 11, 719.

Medicine and Nutrition. R Chemistry. (Review), 600. Royal Institute of Nomenclature of Organic --. IUPAC. (Re-

view), 141; Erratum, 278. Chloride: Determining traces of - by rapid

evolution - conductimetric procedure. Priscott,

Chlorine: Comparative elemental analyses of standard plant material. Bowen, 124.

4-Chloroacetanilide: Limit test for - in phenacetin and its preparations, 290.

N-(4-Chlorobenzyl)-1-naphthylmethylamine: Consecutive determinations of perchlorate and nitrate ions (---- as nitrate precipitant). Hutton and Stephen, 501.

 $\beta$  - Chloro -  $\beta'$  - hydroxyethyl sulphide: Separating mustard gas and hydroxy analogues by thinlayer chromatography. Stanford, 64.,

Chlorthion: Thin-layer chromatographic screening test for organophosphorus pesticide residues. Abbott, Burridge, Thomson and Webb, 170.

Chromatograph: Device for transferring gases evolved at low pressure to gas ---. Coe, 199. - for determining fatty acids. Priscott,

Chromatography: Analiticheskaya Reaktsionnaya Gazovaya Khromatografiya (Analytical Reaction Gas —). Berezkin. (Review), 786.
Chromatographic Reviews. Vol. 8. Lederer.

(Review), 783.

Collection of fractions separated by gas - liquid II. Direct transfer of fraction from trap to silver chloride infrared cell or nuclear magnetic resonance spherical microcell. Fowlis and Welti, 639.

- in Analysis of Steroid Hormones. Wotiz and Clark. (Review), 345.

Inorganic thin-layer ---. II. of first row transition metals on thin layers of substrates impregnated with tributyl phosphate. Bark, Duncan and Graham, 31.

Laboratory Handbook of Chromatographic Methods. Mikes. Translation Editor Chalmers. (Review), 599.

Porous polymer beads in gas-chromatographic separation of glycols and glycol ethers. Palframan and Walker, 535.

Programmed Temperature Gas - Harris and Habgood. (Review), 275.

Reversed-phase thin-layer --- of metal ions with tributyl phosphate. Bark, Duncan and Graham, 347.

Techniques in gas ---. I. Choice of solid supports: review. Palframan and Walker, 71; Note, 536.

Thin-layer of neutral drugs. Haywood, Horner and Rylance, 711.

Chromium: Comparative elemental analyses of standard plant material. Bowen, 124.

Chromium-continued

Inorganic thin-layer chromatography. Chromatography of first row transition metals on thin layers of substrates impregnated with Bark, Duncan and trbutyl phosphate. Graham, 31.

Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark,

Duncan and Graham, 347.

Chromium-51: Recovery of trace elements after oxidation of organic material with 50 per cent. hydrogen peroxide. Down and Gorsuch, 398.

Cigarette smoke: Determination of oxidisable -. Smith, Sullivan and nitrogen oxides in -

Citrus juices: Detection of adulteration of fruit juices by thin-layer chromatography. Alvarez,

Cobalt: Analytical Chemistry of ----. Pyatnitskii. (Review), 201.

Comparative elemental analyses of standard plant material. Bowen, 124.

Inorganic thin-layer chromatography. Chromatography of first row transition metals on thin layers of substrates impregnated with tributyl phosphate. Bark, Duncan and Graham, 31.

Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark, Duncan and Graham, 347.

Cocaine: Assay of organic bases in aqueous eyedrops. Cooper and Hammond, 180.

Cockcroft - Walton set: Analytical applications of 0.5-MeV --based on measurement of prompt y-radiation. Pierce, Peck and Cuff, 143.

Cokes: Determining sulphur in carbons and by gas chromatography. Olds, Patrick and Shaw, 54.

Colorimetry: See Analysis.

Commissariat a l'Énergie Atomique et Commission d'Etablissement des Méthodes d'Analyse: Méthodes d'Analyse Cetama-1966. (Review), 788

Complexes: Benzenoid-Metal -Zeiss, Wheatley and Winkler. (Review), 537.

Conductimetry: Precise location of conductimetric end-points by simplified least squares technique. Latham and Lawley, 698.

Contamination Analysis and Control. Dwyer. (Review), 784.

See also Adulteration; Impurities. 

Copper: Comparative elemental analyses of standard

plant material. Bowen, 124. Determination of arsenic in and brass by neutron-activation analysis. Grimanis and Souliotis, 549.

Determination of -- in trace-element superphosphate by a.c. polarography. Curthoys and

Simpson, 565.

thin-layer chromatography. II. Inorganic Chromatography of first row transition metals on thin layers of substrates impregnated with tributyl phosphate. Bark, Duncan and Graham, 31.

Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark,

Duncan and Graham, 347.

Cosmetics: Thin-layer chromatographic determination of quassin in ---. Hunt, 36.

Crops: See Plants.

Curcumin: Modified -- method for low level boron determination. Grinstead and Snider.

DDT: Determination of chlorinated pesticides in aqueous emulsions. Cooper, Andrews and Hammond, 493.

Demeton-O-methyl: Thin-layer chromatographic screening test for organophosphorus pesticide residues. Abbott, Burridge, Thomson and Webb, 170.

Demeton-S-methyl: Thin-layer chromatographic screening test for organophosphorus pesticide Abbott, Burridge, Thomson and residues. Webb, 170.

Denaturant: Thin-layer chromatographic determination of quassin in cosmetics. Hunt, 36.

Deuterium oxide: Dimethyl sulphoxide as solvent for isotopic analysis of water by infrared spectrometry. Mahadevan, 717.

Dialkyl phthalates: Determination of traces of by gas - liquid chromatography. Bunting and Walker, 575.

Dialkyltin: Determination of stabilisers in aqueous extracts from PVC and other plastics. Sawyer, 569.

Diazinon: Thin-layer chromatographic screening test for organophosphorus pesticide residues. Abbott, Burridge, Thomson and Webb, 170.

Dichloroethane: Effect of impurity in —— solvent

on determination of boron with methylene blue. Strizovic and Caldwell, 200.

ββ'-Dichloroethyl sulphide: See Mustard gas. Dicumyl peroxide: Determining ---- in polystyrene materials. Brammer, Frost and Reid, 91.

Dieldrin: Determination of chlorinated pesticides in aqueous emulsions. Cooper, Andrews and Hammond, 493.

eparation of from pentachlorophenol. Wilson, Franks and Sherlock, 782.

Diethylmercury: Field determination of organomercurial vapours in air. Christie, Dunsdon and Marshall, 185; Erratum, 538.

ββ'-Dihydroxyethyl sulphide: Separating mustard gas and hydroxy analogues by thin-layer chromatography. Stanford, 64. chromatography.

4, 4'-Di-isocyanatodiphenylmethane: Field determination of in air. Reilly, 513.

Dimethoate: Thin-layer chromatographic screening test for organophosphorus pesticide residues. Abbott, Burridge, Thomson and Webb, 170.

Dimethyl sulphoxide as solvent for isotopic analysis of water by infrared spectrometry. Mahadevan, 717

Dimetridazole: Polarographic determination of in animal feeding stuffs. Cooper and Hoodless,

2,4-Dinitrophenylhydrazones: Qualitative analysis of complex carbonyl mixtures by thin-layer Dhont and (of ——). chromatography Dijkman, 431.

Dioximes of large ring 1,2-diketones and applications to determination of bismuth, nickel and palladium. Bassett, Leton and Vogel, 279.

Diphenylmercury: Field determination of organomercurial vapours in air. Christie, Dunsdon and Marshall, 185; Erratum, 538.

Diquat: Spectrophotometric determination of and paraquat in aqueous herbicide formulations. Yuen, Bagness and Myles, 375.

П

Discharge tubes: Preparation of metal halide mercury microwave-excited electrodeless as spectral-line sources. Ani, Dagnall and West, 597.

Disulfoton: Thin-layer chromatographic screening test for organophosphorus pesticide residues. Abbott, Burridge, Thomson and Webb, 170

Drugs: Thin-layer chromatography of neutral -Haywood, Horner and Rylance, 711.

Dyes: Heterocyclic azo --- in analytical chemistry: review. Anderson and Nickless, 207; Erratum, 538.

Dysprosium: Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark, Duncan and Graham, 347.

EDTA: See Ethylenediaminetetra-acetic acid. **Electrochemical Society:** Electron Microprobe. McKinley, Heinrich and Wittry. (Review), 68.

Electrochemistry: Advances in -- and Electrochemical Engineering. Vol. 4. Delahav and Tobias. (Review), 661.

Modern Aspects of --. No. 4. Bockris. (Review), 660.

Electrode: Voltammetric studies with different

systems. II. Tungsten as reference in polarography. Athavale, Dhaneshwar and Dhaneshwar, 567.

Electron-capture detectors: Cleaning concentric-tube design. Starr and Johnsen,

Microprobe: McKinley, Heinrich and Wittry. (Review), 68.

Spin Resonance in Semiconductors. Lancaster. (Review), 203,

Spin Resonance: Introduction to ---. Assenheim. (Review), 203.

Transfer: Mechanisms of --. Reynolds and Lumrys. (Review), 661.

Electrophoresis: Chromatographic Reviews. Vol. 8. Lederer. (Review), 783.

Electroplating: Modern - Laboratory Manual. Armet. (Review), 68.

Encyclopedia: Kirk-Othmer of Chemical Technology. Vol. 9. Mark, McKetta, Othmer and Standen. 2nd Edn. (Review), 273; Vol. 10, 658; Vol. 11, 719.

Endrin: Determination of chlorinated pesticides in aqueous emulsions. Cooper, Andrews and Hammond, 493.

Enthalpimetric titration of basic nitrogen compounds. Vaughan and Swithenbank, 364.

Ephedrine: Detection of --- in biological material by ultraviolet spectrophotometry. Tompsett,

Equilibria in Solution. Fleck. (Review), 141. Erbium: Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Duncan and Graham, 347.

ta: Notification of — in "Official, Standardised and Recommended Methods of Analy-Errata: Notification of --sis" and in "Determination of Trace Elements with Special Reference to Fertilisers and Feeding Stuffs." Society for Analytical Chemistry, Analytical Methods Committee, 65; Erratum, 206.

Ethopabate: Determination of . Society for Analytical Chemistry, Analytical Methods Committee, Prophylactics in Animal Feeds Sub-Committee, 468.

Ethyl butyryl-urea: Thin-layer chromatography of neutral drugs. Haywood, Horner and Rylance,

Ethyl crotonyl-urea: Thin-layer chromatography of neutral drugs. Haywood, Horner and Rylance,

Ethylenediaminetetra-acetic acid: Specific spectrofluorimetric determination of terbium as EDTA - sulphosalicylic acid complex. Dagnall, Smith and West, 358.

Ethylmercury chloride: Field determination of organomercurial vapours in air. Christie, Dunsdon and Marshall, 185; Erratum, 538.

Ethylmercury phosphate: Field determination of organomercurial vapours in air. Christie, Dunsdon and Marshall, 185: Erratum, 538.

Europium: Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark, Duncan and Graham, 347.

Eye-drops: Assay of organic bases in aqueous -Cooper and Hammond, 180.

Fat(s): Determination of butter - in margarine - by transesterification and gas chromatography. Withington, 705. lls,—and Fatty Foods. Williams. 4th Edn.

(Review), 408.

Progress in the Chemistry of — and Other Lipids. Vol. 9. Part 1. Holman. (Review), 139.

Fatty acids: Gas chromatograph for determining Priscott, 57.

Feeding-stuffs: Determination of ethopabate in —. Society for Analytical Chemistry, Analytical Methods Committee, Prophylactics in Animal Feeds Sub-Committee, 468.

Determining phosphate and calcium in ——, Stuffins, 107; Erratum, 278. Polarographic determination of dimetridazole in

animal ----. Cooper and Hoodless, 520. Fenchlorphos: Thin-layer chromatographic screening test for organophosphorus pesticide residues. Abbott, Burridge, Thomson and Webb, 170.

Ferrous sulphate: See Iron sulphate. Fertilisers: Determining boron in -

Brownlie and Godden, 47. Fertiliser Manufacturers' Association: Determining boron in fertilisers. Borland, Brownlie and Godden, 47.

Fish: Determination of strontium-90 in environmental materials (in ----) by ion exchange and preferential chelation techniques. Ibbett, 417.

Flame Photometric Analysis: Techniques in Poluektov. Translated by Turton and Turton. (Review), 204.

Photometry Theory. Pungor. Translation Editor Chalmers. (Review), 720.

Spectroscopy: Bibliography on — Analytical Applications 1800–1966. Mavrodineanu. (Review), 722.

- in fluorite ores and Fluorine: Determination of concentrates by isotope-source fast-neutron activation analysis. Jeffery and Bakes, 151.

Determination of small amounts of —— in roc

and minerals. Evans and Sergeant, 690. Fluorite: Determination of fluorine in ores and concentrates by isotope-source fast-neutron

activation analysis. Jeffery and Bakes, 151. Food(s): Determination of microgram amounts of lead in - with radioactive tracer. Bogen and Kleinman, 611.

Food(s)-continued

Determination of residues of organophosphorus pesticides in ---: review. Abbott and Egan, 475.

Oils, Fats and Fatty ---. Williams. 4th Edn. (Review), 408.

Forensic Science: Methods of -Vols. I and II. Lundquist. Vols. III and IV. Curry. (Re-

view), 69. Formaldehyde: Determination of small amounts of ---- in acetaldehyde. Harrison, 773. Fruit juices: Detection of adulteration of

thin-layer chromatography. Alvarez, 176.

Fuel gas: Importance of — composition in atomic-absorption spectrophotometric determination of magnesium. Andrew and Nichols,

Funnel: All-plastic suction ----. Pritchard, 199.

# G

Gadolinium: Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark, Duncan and Graham, 347.

Gallium: Comparative elemental analyses of standard plant material. Bowen, 124.

Gamma-activation analysis: review. Baker, 601. Gas analysis: Industrial --: literature review. Wilson and Duff, 723.

chromatography: See Chromatography.

flow: Accurate metering of - for pyrolysis experiments in controlled atmosphere. and Betts, 653.

Germanium-68: Recovery of trace elements after oxidation of organic material with 50 per cent. hydrogen peroxide. Down and Gorsuch, 398.

Glucose: Determination of silyl derivatives of . by gas-liquid chromatography with inert internal standards. Halpern, Houminer and Patai, 714.

Determining -- in blood or plasma. Pryce, 198.

Glutamic acid: Determination of small amounts of amino-acids. Heathcote and Washington, 627. Glutethimide: Thin-layer chromatography of neutral

drugs. Haywood, Horner and Rylance, 711. Glycine: Determination of small amounts of aminoacids. Heathcote and Washington, 627.

Glycolaldehyde: Spectrophotometric micro determination of -Basson and Plessis, 463.

Glycol ethers: Porous polymer beads in gaschromatographic separation of glycols and
—. Palframan and Walker, 535.

Glycols: Determination of tertiary hydroxyl groups. Bradley and Penketh, 701.

Porous polymer beads in gas-chromatographic separation of - and glycol ethers. Palframan and Walker, 535.

Gold: Comparative elemental analyses of standard

plant material. Bowen, 124. Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark, Duncan and Graham, 347.

Hemp, Indian: See Cannabis sativa L.

Herbicide: Spectrophotometric determination of diquat and paraquat in aqueous --- formulations. Yuen, Bagness and Myles, 375.

Hexacyanoferrate: Amperometric titration of submillinormal concentrations of - (III) with mercury(I) perchlorate. Stock and Merrer, 98.

Hexoestrol: Detection and determination of meat. Cooper, Maunder and McCutcheon, 382.

Holmium: Reversed-phase thin-layer chromato-graphy of metal ions with tributyl phosphate. Bark, Duncan and Graham, 347.

Homatropine: Assay of organic bases in aqueous eye-drops. Cooper and Hammond, 180.

Hormones: Gas Chromatography in Analysis of Steroid ——. Wotiz and Clark. (Review), 345

Hydrogen peroxide: Recovery of trace elements after oxidation of organic material with 50 per cent. - Down and Gorsuch, 398.

Use of 50 per cent. —— for destruction of organic matter. Society for Analytical Chemistry. Analytical Methods Committee, Metallic Impurities in Organic Matter Sub-Committee, 403.

Hydroxyl groups: Determination of terminal in polyethyleneoxy compounds. Han, 316. groups: Determination of tertiary ----. Bradley

and Penketh, 701. value: Direct injection enthalpimetry in routine determination of of alkylphenols.

Snelson, Ellis and Vilkauls, 264.

8-Hydroxyquinoline as gravimetric reagent for aluminium. Chalmers and Basit, 680. Determination of aluminium with —

Precipitation in acetate-buffered solution. Claassen and Bastings, 614; II. Precipitation in ammoniacal cyanide - EDTA solution. Claassen, Bastings and Visser, 618.

Hydroponic Solutions: Simplified Analysis of -Schwarz and Szekely. (Review), 786.

Hyoscine: Assay of organic bases in aqueous eye-

drops. Cooper and Hammond, 180.

Impurities: Contamination Analysis and Control. Dwyer. (Review), 784. Reinststoffprobleme. Vols. I and II. Rexer.

(Review), 661. See also Contamination.

Indian hemp: See Cannabis sativa L.

Indium: Inorganic thin-layer chromatography. II. Chromatography of first row transition metals on thin layers of substrates impregnated with tributyl phosphate. Bark, Duncan and Graham, 31.

Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark, Duncan and Graham, 347.

Indium-114: Recovery of trace elements after oxidation of organic material with 50 per cent. hydrogen peroxide. Down and Gorsuch, 398.

Infra-Red Physics: Houghton and Smith. (Review),

Spectra: Interpreted ---. Vol. 2. Szymanski. (Review), 473.

Spectra of Cellulose and its Derivatives. Zhbankov. Edited by Stepanov. Translated by Densham. (Review), 345.

Spectra: Systematic Approach to Interpretation of —. Szymanski. (Review), 785. Instruments: See Apparatus.

International Union of Pure and Applied Chemistry: XXth International Congress of Pure and Applied Chemistry. — and Academy of Applied Chemistry. — and Acade Sciences of the U.S.S.R. (Review), 538.

Nomenclature of Organic Chemistry, 141; Erratum, 278.

Iodine: Comparative elemental analyses of standard plant material. Bowen, 124.

Evaluation of thyroid (determination of small amounts of --- - containing organic compounds). Pharmaceutical Society and Society for Analytical Chemistry, 328.

Ion-exchangers: Séparations par les Résines Échangeuses d'Ions. Trémillon. (Review).

Iridium: Determining antimony, cadmium, cerium, - and silver in biological material by radioactivation. Bowen, 118.

Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark, Duncan and Graham, 347.

Iron: Comparative elemental analyses of standard plant material. Bowen, 124.

Complexometric determination of aluminium and total --- in silicate and other rock material. Evans, 685; Erratum, 788.

Determination by atomic-absorption spectro-scopy of elements, including silicon, aluminium and titanium (and ----) in cement. Capacho-Delgado and Manning, 553.

Determining niobium in metals and alloys (in —). Williams, 43.

Rapid determination of --- in plant material with application of automatic analysis to colorimetric procedure. Quarmby and Grimshaw, 305.

Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark, Duncan and Graham, 347.

Iron sulphate: Use of iron(II) sulphate for reduction of nitrate to ammonia in microdiffusion method for determining nitrate in soil extracts. Premi and Cornfield, 196.

Isotopic-dilution analysis with modified substoicheiometric residue method for carbonate and

sulphate. Johannesson, 766.

IUPAC: See International Union of Pure and Applied Chemistry.

Juices: Detection of adulteration of fruit thin-layer chromatography. Alvarez, 176.

# K

Karl Fischer cell: Pre-reaction attachment for -Lack and Frost, 396.

Ketones: Qualitative analysis of complex carbonyl mixtures by thin-layer chromatography. Dhont and Dijkman, 431.

- in Homogeneous Systems. Kinetics: Chemical -Ritchie. (Review), 139.

Lake-water: See Water.

Lanthanum: Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark, Duncan and Graham, 347.

Lead: Determination of microgram amounts of in food with radioactive tracer. Bogen and Kleinman, 611.

Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark, Duncan and Graham, 347.

Lead-212: Determination of microgram amounts of lead in food with radioactive tracer. Bogen and Kleinman, 611.

Leucine: Determination of small amounts of aminoacids. Heathcote and Washington, 627,

Lindane: Determination of chlorinated pesticides in aqueous emulsions. Cooper, Andrews and Hammond, 493.

Lipids: Progress in the Chemistry of Fats and Other

 Vol. 9. Part 1. Holman, 139.

Lithium: Determination by atomic-absorption spectroscopy of elements, including silicon, aluminium and titanium (and ----) in cement. Capacho-Delgado and Manning, 553.

Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark, Duncan and Graham, 347.

Lutetium: Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark, Duncan and Graham, 347.

Lysine: Determination of small amounts of aminoacids. Heathcote and Washington, 627.

# M

Magnesium: Comparative elemental analyses of standard plant material. Bowen, 124.
Component of commercial Titan yellow most

reactive towards ---: isolation and use in determining --- in silicate materials. King and Pruden, 83.

Determination by atomic-absorption spectroscopy of elements, including silicon, aluminium and titanium (and ---) in cement. Capacho-Delgado and Manning, 553.

Determination of traces of --, strontium and nickel in lake-water by neutron-activation analysis. Souliotis, Belkas and Grimanis, 300.

Importance of fuel gas composition in atomicabsorption spectrophotometric determination Andrew and Nichols, 156.

Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Duncan and Graham, 347. Bark,

Spectrofluorimetric determination of -NN'-bis-salicylidene-2, 3-diaminobenzofuran. Dagnall, Smith and West, 20.

Synthesis of active component of commercial Titan yellow for use in determination of . King, Pruden and Janes, 695.

Magnetic Susceptibility. Mulay. (Review), 662. Malathion: Determination of in formulations by method based on cleavage by alkali. Hill, Akhtar, Mumtaz and Osmani, 496.

Thin-layer chromatographic screening test for organophosphorus pesticide residues. Abbott, Burridge, Thomson and Webb, 170.

Manganese: Comparative elemental analyses of standard plant material. Bowen, 124.

Determination by atomic-absorption spectroscopy of elements, including silicon, aluminium and in cement. Capachotitanium (and -Delgado and Manning, 553.

Inorganic thin-layer chromatography. II. Chromatography of first row transition metals on thin layers of substrates impregnated with tributyl phosphate. Graham, 31. Bark, Duncan and

Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark, Duncan and Graham, 347.

Manganese-54: Recovery of trace elements after oxidation of organic material with 50 per cent. hydrogen peroxide. Down and Gorsuch, 398.

Margarine fat: Determination of butter fat in by transesterification and gas chromatography. Withington, 705.

Meat: Detection and determination of hexoestrol in Cooper, Maunder and McCutcheon, 382.

Medicine: Chemistry, ---- and Nutrition. Royal Institute of Chemistry. (Review), 600. Menazon: Thin-layer chromatographic screening

test for organophosphorus pesticide residues. Abbott, Burridge, Thomson and Webb, 170. Mephenesin: Thin-layer chromatography of neutral drugs. Haywood, Horner and Rylance, 711.

Mephenesin carbamate: Thin-layer chromatography of neutral drugs. Haywood, Horner and Rylance, 711.

Meprobamate: Thin-layer chromatography of neutral drugs. Haywood, Horner and Rylance, 711.

Mercurous perchlorate: Amperometric titration of submillinormal concentrations of hexacvanoferrate(III) with ---. Stock and Merrer, 98.

Mercury: Comparative elemental analyses of standard plant material. Bowen, 124.

Determination of --- by atomic-absorption spectroscopy in air - acetylene flame. Hingle, Kirkbright and West, 759.

Field determination of organomercurial vapours in air. Christie, Dunsdon and Marshall, 185; Erratum, 538.

Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Duncan and Graham, 347.

Metal: Benzenoid- - Complexes. Zeiss, Wheatley

and Winkler. (Review), 537.

Metallurgy: Analyse der Metalle. Vol. I. Chemikerausschuss der Gesellschaft Deutscher Metallhütten und Bergleute. 3rd Edn. (Review), 66. Handbuch für das Eisenhüttenlaboratorium. Vol. (Review), 274.

Methylene blue: Effect of impurity in dichloroethane solvent on determination of boron with -Strizovic and Caldwell, 200.

Volumetric determination of styphnates with Kurz and Kober, 391.

Methylmercury dicyandiamide: Field determination of organomercurial vapours in air. Christie, Dunsdon and Marshall, 185; Erratum, 538.

Methylpentynol carbamate: Thin-layer chromato-

graphy of neutral drugs. Haywood, Horner and Rylance, 711.

Methyprylone: Thin-layer chromatography of neutral drugs. Haywood, Horner and Rylance, 711.

Mevinphos: Mobile laboratory methods for determination of pesticides in air. III. Lloyd and Bell, 578.

Microscopy: Methods in Chemical and Mineral -El-Hinnawi. (Review), 472.

Minerals: Determination of small amounts of fluorine in rocks and ---. Evans and Sergeant, 690.

Determination of vanadium in silicate rocks and with N-benzoyl-o-tolylhydroxylamine. Jeffery and Kerr, 763.

Salicylidene-2-thiophenol -+ reagent for photometric determination of tin: application to analysis of ores, rocks and -Gregory and Jeffery, 293; Erratum, 538.

Spectrographic determination of beryllium in with gas-stabilised arc. Marinković and Antić-Jovanović, 645.

Molecular-emission spectroscopy in cool flames. I. Behaviour of sulphur species in a hydrogen nitrogen diffusion flame and in a shielded air hydrogen flame. Dagnall, Thompson and West, 506.

Molybdenum: Colorimetric determination of soils and sediments by zinc dithiol. Stanton and Hardwick, 387.

Comparative elemental analyses of standard plant material. Bowen, 124.

Inorganic thin-layer chromatography. II. Chromatography of first row transition metals on thin layers of substrates impregnated with tributyl phosphate. Bark, Duncan and Graham, 31.

Oxidimetric determination of ----. Becker and Coetzee, 166.

Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark, Duncan and Graham, 347.

Mortar: Preparation of analysis samples of hard materials with boron carbide mortar. Boulton and Eardley, 271.

Mustard gas: Separating — analogues by thin-layer and hydroxy thin-layer chromatography. Stanford, 64.

NATO: See North Atlantic Treaty Organisation. Neodymium: Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark, Duncan and Graham, 347.

Nickel: Analysis of --. Lewis, Ott and Sine. (Review), 204.

Comparative elemental analyses of standard plant material. Bowen, 124.

Dioximes of large ring 1,2-diketones and applications to determination of bismuth, palladium. Bassett, Leton and Vogel, 279.

Determination of traces of magnesium, strontium - in lake-water by neutron-activation Souliotis, Belkas and Grimanis, 300. analysis.

Inorganic thin-layer chromatography. II. Chromatography of first row transition metals on thin layers of substrates impregnated with tributyl phosphate. Bark, Duncan and Graham, 31.

Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark, Duncan and Graham, 347.

Niobium: Determining - in metals and alloys. Williams, 43.

Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Duncan and Graham, 347.

Nitrite: Automated analysis of nitrite and blood. Litchfield, 132.

Consecutive determinations of perchlorate and - ions. Hutton and Stephen, 501.

Determination of --- in soil solutions by ultraviolet spectrophotometry. Cawse, 311.

Iron(II) sulphate for reduction of ammonia in microdiffusion method for deterin soil extracts. Premi and mining Cornfield, 196.

Nitrite: Automated analysis of - and nitrate in blood. Litchfield, 132.

Nitrogen: Comparative elemental analyses of standard plant material. Bowen, 124.

Determination of combined --- in tungsten metal powder. Awasthi, Sahasranaman and Sundaresan, 650.

Nitrogen-continued

Determining -- in uranium nitrides. Taylor and Perrett, 64.

Enthalpimetric titration of basic -- compounds. Vaughan and Swithenbank, 364.

factor for tongue. Society for Analytical Chemistry, Analytical Methods Committee, Meat Products Sub-Committee, 326.

Nitrogen oxides: Determination of oxidisable in cigarette smoke. Smith, Sullivan and Irvine, 456.

Noble Metals: Analytical Chemistry of -Beamish. (Review), 598.

Nomenclature of Organic Chemistry. IUPAC. (Review), 141; Erratum, 278.

North Atlantic Treaty Organisation: Pesticides in the Environment and their Effects on Wildlife. Moore. (Review), 142.

Nuclear Magnetic Resonance: Anwendungen der Kernmagnetischen Resonanz in der Organischen Chemie. Suhr. (Review), 474.

Formula Index to NMR Literature Data. Howell, Kende and Webb. (Review), 410.

Spectroscopy: Progress in --. Vol. 1. Emsley, Feeney and Sutcliffe. (Review), 278; Vol. 2,

Nutrition: Chemistry, Medicine and -Institute of Chemistry. (Review), 600.

Oils, Fats and Fatty Foods. Williams. 4th Edn. (Review), 408.

Ores: Salicylideneamino-2-thiophenol-reagent for photometric determination of tin: application to analysis of ----, rocks and minerals. Gregory and Jeffery, 293; Erratum, 538.

Organic matter, total: Determination of --- (carbon content) in aqueous media. I. Organic matter in aqueous plant streams. Cropper, Heinekey and Westwell, 436; II. Involatile organic matter in de-mineralised water, 443.

Organomercury: Field determination of organomercurial vapours in air. Christie, Dunsdon and Marshall, 185; Erratum, 538.

Organophosphorus: Determination of residues of - pesticides in foods: review. Abbott and Egan, 475.

Osmium: Reversed-phase thin-layer chromato-

graphy of metal ions with tributyl phosphate. Bark, Duncan and Graham, 347.

Oxydemeton-methyl: Thin-layer chromatographic screening test for organophosphorus pesticide residues. Abbott, Burridge, Thomson and Webb, 170.

Palladium: Dioximes of large ring 1,2-diketones and applications to determination of bismuth, -. Bassett, Leton and Vogel, nickel and -

Inorganic thin-layer chromatography. II. Chromatography of first row transition metals on thin layers of substrates impregnated with tributyl phosphate. Bark, Duncan and Graham, 31.

Radiochemical separation technique for -Boswell and McGee, 769.

Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark, Duncan and Graham, 347.

2-Selenophene aldoxime for gravimetric determination of - Bark and Griffin, 162.

Paraoxon: Thin-layer chromatographic screening test for organophosphorus pesticide residues. Abbott, Burridge, Thomson and Webb, 170.

Paraquat: Spectrophotometric determination of diquat and - in aqueous herbicide formulations. Yuen, Bagness and Myles, 375.

Parathion: Thin-layer chromatographic screening test for organophosphorus pesticide residues. Abbott, Burridge, Thomson and Webb, 170.

Pentachlorophenol: Separation of dieldrin from

Wilson, Franks and Sherlock, 782.

Pentylene tetrazole: Thin-layer chromatography of neutral drugs. Haywood, Horner and Rylance, 711.

Perchlorate: Consecutive determinations of and nitrate ions. Hutton and Stephen, 501.

Pesticides: Determination of chlorinated -- in aqueous emulsions. Cooper, Andrews and Hammond, 493.

Determination of residues of organophosphorus in foods: review. Abbott and Egan, 475. in the Environment and their Effects on Wildlife.

NATO. Moore. (Review), 142.

Mobile laboratory methods for determination of in air. III. Mevinphos. Lloyd and Bell,

Thin-layer chromatographic screening test for organophosphorus --residues. Abbott. Burridge, Thomson and Webb, 170.

Pharmaceutical Society: Chemical assay of aloes. and Society for Analytical Chemistry, 593. Evaluation of thyroid. - and Society for Analytical Chemistry, 328.

Phase Rule: The --. Ferguson and Jones. (Review), 202.

Phenacetin: Limit test for 4-chloroacetanilide in - and its preparations, 290.

Phenkapton: Thin-layer chromatographic screening test for organophosphorus pesticide residues. Abbott, Burridge, Thomson and Webb, 170.

Phenols: Direct injection enthalpimetry in routine determination of hydroxyl value of alkyl-Snelson, Ellis and Vilkauls, 264.

Phenurone: Thin-layer chromatography of neutral drugs. Haywood, Horner and Rylance, 711.

Phorate: Thin-layer chromatographic screening test for organophosphorus pesticide residues. Abbott, Burridge, Thomson and Webb, 170.

Phosphamidon: Thin-layer chromatographic screening test for organophosphorus pesticide residues. Abbott, Burridge, Thomson and Webb, 170.

sphate: Determining — and calcium in feeding stuffs. Stuffins, 107; Erratum, 278. Phosphate: Determining -Phosphorus: Comparative elemental analyses of

standard plant material. Bowen, 124. Indirect sequential determination of silicon by atomic-absorption spectrophoto-Kirkbright, Smith and West, 411.

Phthalates: Determination of traces of dialkyl by gas - liquid chromatography. Bunting and Walker, 575.

Physics: Infra-Red -. Houghton and Smith. (Review), 474.

Physostigmine: Assay of organic bases in aqueous eye-drops. Cooper and Hammond, 180.

Picloram: Gas-chromatographic determination of residues of --- Leahy and Taylor, 371. Pilocarpine: Assay of organic bases in aqueous eye-

drops. Cooper and Hammond, 180. Plant(s): Comparative elemental analyses of stand-- material. Bowen, 124. ard -

Modified Miles' method for determining azinphosmethyl residues in crops. Smart, 779.

Plant(s)-continued

Rapid determination of iron in -- material with application of automatic analysis to colorimetric procedure. Quarmby and Grimshaw,

Plastics: Determination of dialkyltin stabilisers from aqueous extracts from PVC and other Sawyer, 569.

Platinum: Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark, Duncan and Graham, 347.

Plutonium: Determination of -- in refractory materials by electrometric methods after dissolution by fusion with ammonium hydrogen sulphate. Milner, Wood, Weldrick and Phillips, 239.

Polarographic Society: Polarography 1964. Vols. 1

and 2. Hills. (Review), 276.

Polarography 1964. Vols. 1 and 2. Hills. (Review), 276.

Voltammetric studies with different electrode systems. II. Tungsten as reference electrode Athavale. Dhaneshwar and Dhaneshin war, 567.

Polyethyleneoxy compounds: Determination of terminal hydroxyl groups in ---. Han, 316. Polyglycerols: Thin-layer chromatography of -

Dallas and Stewart, 634.

Polymer(s): Determination of dialkyltin stabilisers in aqueous extracts from PVC and other plastics. Sawyer, 569.

Porous . beads in gas-chromatographic separation of glycols and glycol ethers. Palframan and Walker, 535.

Polystyrene: Determining dicumyl peroxide in materials. Brammer, Frost and Reid, 91.

Poly(vinyl chloride): Determination of dialkyltin stabilisers in aqueous extracts from other plastics. Sawyer, 569.

Potassium: Comparative elemental analyses of standard plant material. Bowen, 124

Determination by atomic-absorption spectroscopy of elements, including silicon, aluminium and titanium (and in cement. Capacho-Delgado and Manning, 553.

Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark, Duncan and Graham, 347.

Praseodymium: Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark, Duncan and Graham, 347.

Precipitation from homogeneous solution by cation release at constant pH. Cartwright, 319. from homogeneous solution: review. Cartwright,

Newman and Wilson, 663.

Chemicals. Perrin, Purification of Laboratory Armarego and Perrin. (Review), 537. Reinststoffprobleme. Vols. I and II. Rexer.

(Review), 661.

Pyrolysis: Accurate metering of gas flow for experiments in controlled atmosphere. Bassett and Betts, 653.

Quassin: Thin-layer chromatographic determination of - in cosmetics. Hunt, 36.

Radioactive tracer methods in inorganic trace analysis: recent advances: review. McMillan, Radiochemistry: Analytical applications of 0.5-MeV Cockroft - Walton set based on measurement of prompt y-radiation. Pierce, Peck and Cuff, 143. Wilson. 2nd Edn. (Re-Radiochemical Manual. view), 205.

Reagents: Purification of Laboratory Chemicals. Perrin, Armarego and Perrin. (Review), 537.

Refractories: Determination of plutonium in by electrometric methods after dissolution by fusion with ammonium hydrogen sulphate. Milner, Wood, Weldrick and Phillips, 239.

Rhenium: Reversed-phase thin-layer chromato-

graphy of metal ions with tributyl phosphate.

Bark, Duncan and Graham, 347.

Rhodium: Inorganic thin-layer chromatography. II. Chromatography of first row transition metals on thin layers of substrates impregnated with tributyl phosphate. Bark, Duncan and Graham, 31.

Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark, Duncan and Graham, 347.

Rock(s): Colorimetric determination of molybdenum in soils and sediments (and ----) by zinc dithiol.

Stanton and Hardwick, 387.

Complexometric determination of aluminium and total iron in silicate and other -- material. Evans, 685; Erratum, 788.

Determination of small amounts of fluorine in and minerals. Evans and Sergeant, 690.

Determination of vanadium in silicate - and minerals with N-benzoyl-o-tolylhydroxylamine. Jeffery and Kerr, 763.

Salicylideneamino - 2 - thiophenol - reagent photometric determination of tin: application to analysis of ores, - and minerals. Gregory and Jeffery, 293; Erratum, 538.

Royal Institute of Chemistry. Chemistry, Medicine and Nutrition. (Review), 600.

Rubidium: Comparative elemental analyses of standard plant material. Bowen, 124. Reversed-phase thin-layer chromatography of

metal ions with tributyl phosphate. Bark, Duncan and Graham, 347.

Ruthenium: Inorganic thin-layer chromatography.
II. Chromatography of first row transition
metals on thin layers of substrates impregnated with tributyl phosphate. Bark, Duncan and Graham, 31.

Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark, Duncan and Graham, 347.

Ruthenium-106: Recovery of trace elements after oxidation of organic material with 50 per cent. hydrogen peroxide. Down and Gorsuch, 398.

Salicylideneamino-2-thiophenol-reagent for photometric determination of tin: application to analysis of ores, rocks and minerals. Gregory and Jeffery, 293; Erratum, 538.

Samarium: Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate.

Bark, Duncan and Graham, 347.

Scandium: Comparative elemental analyses of standard plant material. Bowen, 124. Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark,

Duncan and Graham, 347.

Sea water: Determination of strontium-90 in environmental materials (in ——) by ion exchange and preferential chelation techniques. Ibbett, 417.

Seaweeds: Determination of strontium-90 in environmental materials (in ——) by ion exchange and preferential chelation techniques. Ibbett, 417.

Sediments: Colorimetric determination of molybdenum in soils and —— by zinc dithiol. Stanton and Hardwick, 387.

Determination of strontium-90 in environmental materials (in —) by ion exchange and preferential chelation techniques. Ibbett, 417.

Sedormid: Thin-layer chromatography of neutral

drugs. Haywood, Horner and Rylance, 711.

Sedulon: Thin-layer chromatography of neutral drugs. Haywood, Horner and Rylance, 711.

Selenium: Comparative elemental analyses of

standard plant material. Bowen, 124.
Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark,

metal ions with tributyl phosphate. Bark,
Duncan and Graham, 347.

Selenium-75: Recovery of trace elements after oxidation of organic material with 50 per cent. hydrogen peroxide. Down and Gorsuch, 398.
 2-Selenophene aldoxime for gravimetric determina-

tion of palladium. Bark and Griffin, 162.

Semiconductors: Electron Spin Resonance in ——
Lancaster. (Review), 203.

Silica: Coagulation method for determining — (without dehydration) in silicate materials. Bennett and Reed, 466.

Silicate(s): Coagulation method for determining silica (without dehydration) in —— materials. Bennett and Reed, 466.

Determination of vanadium in — rocks and minerals with N-benzoyl-o-tolylhydroxylamine. Jeffery and Kerr, 763.

Complexometric determination of aluminium and total iron in —— and other rock material. Evans, 685; Erratum, 788.

Component of commercial Titan yellow most reactive towards magnesium: isolation and use in determining magnesium in — minerals. King and Pruden, 83.

Silicon: Determination by atomic-absorption spectroscopy of elements, including ——, aluminium and titanium, in cement. Capacho-Delgado and Manning, 553.

Determination of silyl derivatives of glucose by gas-liquid chromatography with inert internal standards. Halpern, Houminer and Patai, 714.
Fast-neutron activation analysis of — in

sputum. Sárdi and Tomcsányi, 529. Indirect sequential determination of phosphorus and — by atomic-absorption spectrophotometry. Kirkbright, Smith and West, 411.

metry. Kirkbright, Smith and West, 411.

Silver: Determining antimony, cadmium, cerium, iridium and — in biological material by radioactivation. Bowen 118

radioactivation. Bowen, 118. Economics, Metallurgy and Use. Butts and Coxe.

(Review), 722.

Inorganic thin-layer chromatography. II. Chromatography of first row transition metals on thin layers of substrates impregnated with tributyl phosphate. Bark, Duncan and Graham, 31.

Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark, Duncan and Graham, 347.

Smoke, cigarette: Determination of oxidisable nitrogen oxides in —. Smith, Sullivan and Irvine, 456.

Society for Analytical Chemistry: Analytical Methods Committee: Notification of errata in "Official, Society for Analytical Chemistry—continued
Standardised and Recommended Methods of
Analysis' and in "Determination of Trace
Elements with Special Reference to Fertilisers

Elements with Special Reference to Fertilisers and Feeding Stuffs'', 65; Erratum, 206. Analytical Methods Committee, Analytical Stand-

ards Sub-Committee. Sulphamic acid as primary standard in acid - base titrimetry, 587. Analytical Methods Committee, Meat Products Sub-Committee. Nitrogen factor for tongue,

Analytical Methods Committee, Metallic Impurities in Organic Matter Sub-Committee. Determination of small amounts of tin in organic matter. I. Amounts of tin up to 30 µg, 320.

Analytical Methods Committee, Metallic Impurities in Organic Matter Sub-Committee. Determination of small amounts of zinc in organic matter, 324.

Analytical Methods Committee, Metallic Impurities in Organic Matter Sub-Committee. Use of 50 per cent. hydrogen peroxide for destruction of organic matter, 403.

Analytical Methods Committee, Prophylactics in

Analytical Methods Committee, Prophylactics in Animal Feeds Sub-Committee. Determination of ethopabate in feeds, 468.

Chemical assay of aloes. Pharmaceutical Society and —, 593.

Evaluation of thyroid. Pharmaceutical Society and —, 328.

**Sodium:** Comparative elemental analyses of standard plant material. Bowen, 124.

Determination by atomic-absorption spectroscopy of elements, including silicon, aluminium and titanium (and ——) in cement. Capacho-Delgado and Manning, 553.

Loss of elements during decomposition of biological materials with special reference to arsenic, —, strontium and zinc. Hamilton, Minski and Cleary, 257.

Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark, Duncan and Graham, 347.

Soil(s): Colorimetric determination of molybdenum in —— and sediments by zinc dithiol. Stanton and Hardwick, 387.

Determination of nitrate in — solutions by ultraviolet spectrophotometry. Cawse, 311. Iron(II) sulphate for reduction of nitrate to ammonia in microdiffusion method for determining nitrate in — extracts. Premi and

Cornfield, 196.

Spectrophotometric determination of aluminium in extracts with xylenol orange. Pritchard, 103.

Spectra: Interpreted Infrared ——. Vol. 2. Szymanski. (Review), 473.

Systematic Approach to Interpretation of Infrared ——. Szymanski. (Review), 785.

Spectrometry: Practical Hints on Absorption ——. Edisbury. (Review), 138.

Spectrophotometry: Atomic-absorption — . Elwell and Gidley. 2nd (Revised) Edn. (Review), 66.

Spectroscopy: Molecular-emission——in cool flames.

I. Behaviour of sulphur species in hydrogennitrogen diffusion flame and in shielded airhydrogen flame. Dagnall, Thompson and
West, 506.

Preparation of metal halide - mercury microwaveexcited electrodeless discharge tubes as spectralline sources. Ani, Dagnall and West, 597. Spectroscopy—continued

Progress in Nuclear Magnetic Resonance -Vol. 2. Emsley, Feeney and Sutcliffe. (Review), 785.

Theory of Spectrochemical Excitation. Boumans. (Review), 599.

Sputum: Fast-neutron activation analysis of silicon Sárdi and Tomcsányi. 529.

Stabilisers: Determination of dialkyltin aqueous extracts from PVC and other plastics.

Sawyer, 569.

Standard: Sulphamic acid as primary base titrimetry. Society for Analytical Chemistry, Analytical Methods Committee, Analytical Standards Sub-Committee, 587.

Steel: Determining niobium in metals and alloys (in ---). Williams, 43.

Steroid Hormones: Gas Chromatography in Analysis of ——. Wotiz and Clark. (Review), 345. Strontium: Comparative elemental analyses of

standard plant material. Bowen, 124. Determination by atomic-absorption spectroscopy of elements, including silicon, aluminium and titanium (and in cement. Capacho-

Delgado and Manning, 553. Determination of traces of magnesium, -

nickel in lake-water by neutron-activation analysis. Souliotis, Belkas and Grimanis, 300. Loss of elements during decomposition of biological materials with special reference to arsenic, sodium, -- and zinc. Hamilton,

Minski and Cleary, 257. Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark,

Duncan and Graham, 347.

Strontium-90: Determination of -- in environmental materials by ion exchange and preferential chelation techniques. Ibbett, 417.

Styphnates: Volumetric determination of methylene blue. Kurz and Kober, 391.

Styramate: Thin-layer chromatography of neutral drugs. Haywood, Horner and Rylance, 711.
Sulphamic acid as primary standard in acid - base titrimetry. Society for Analytical Chemistry, Analytical Methods Committee, Analytical Standards Sub-Committee, 587.

Sulphate: Determining -- in presence of soluble silicate. Azeem, 115.

Isotopic-dilution analysis with modified substoicheiometric residue method for carbonate Johannesson, 766.

Sulphosalicylic acid: Specific spectrofluorimetric determination of terbium as EDTA complex. Dagnall, Smith and West, 358.

Sulphur: Comparative elemental analyses of stand-

ard plant material. Bowen, 124.

Determining —— in carbon and cokes by gas chromatography. Olds, Patrick and Shaw, 54. Molecular-emission spectroscopy in cool flames.

I. Behaviour of -- species in a hydrogen nitrogen diffusion flame and in a shielded air hydrogen flame. Dagnall, Thompson and West, 506.

Superphosphate: Determination of copper in traceelement - by a.c. polarography. Curthoys

and Simpson, 565.

Tantalum: Determining niobium in metals and alloys (in ----). Williams, 43.

Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark, Duncan and Graham, 347.

Tellurium: Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark, Duncan and Graham, 347.

Tellurium-132: Recovery of trace elements after oxidation of organic material with 50 per cent. hydrogen peroxide. Down and Gorsuch, 398.

Terbium: Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark, Duncan and Graham, 347.

Specific spectrofluorimetric determination of as EDTA - sulphosalicylic acid complex. Dagnall, Smith and West, 358.

Terminology: See Nomenclature.

Thallium: Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark, Duncan and Graham, 347.

Thiodiglycol: See BB'-Dihydroxyethyl sulphide.

Thorium: Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark, Duncan and Graham, 347.

Thulium: Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark, Duncan and Graham, 347.

Thyroid: Evaluation of -Pharmaceutical Society and Society for Analytical Chemistry,

Tin: Catechol violet colour reaction for sensitised by cetyltrimethylammonium bromide. Dagnall, West and Young, 27.

Determination of dialkyltin stabilisers in aqueous extracts from PVC and other plastics. Sawyer,

Determination of small amounts of organic matter. I. Amounts of μg. Society for Analytical Chemistry, Analytical Methods Committee, Metallic Impurities in Organic Matter Sub-Committee, 320.

Inorganic thin-layer chromatography. II. Chromatography of first row transition metals on thin layers of constrates impregnated with tributyl phosph e. Bark, Duncan and Graham, 31.

Die Organische Chemie des Zinns. Neumann. (Review), 788.

Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark,

Duncan and Graham, 347. Salicylideneamino-2-thiophenol—reagent for photometric determination of ——; application to analysis of ores, rocks and minerals. Gregory and Jeffery, 293; Erratum, 538.

Tin-113: Recovery of trace elements after oxidation of organic material with 50 per cent. hydrogen

peroxide. Down and Gorsuch, 398.

Titan yellow: Component of commercial reactive towards magnesium: isolation and use in determining magnesium in silicate materials. King and Pruden, 83.

Synthesis of active component of commercial for use in determination of magnesium. King,

Pruden and Janes, 695.

Titanium: Comparative elemental analyses of standard plant material. Bowen, 124.

Determination by atomic-absorption spectroscopy of elements, including silicon, aluminium and , in cement. Capacho-Delgado and Manning, 553.

Inorganic thin-layer chromatography. II. Chromatography of first row transition metals on thin layers of substrates impregnated with tributyl phosphate. Bark, Duncan and Graham, 31.

Titanium-continued

Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark, Duncan and Graham, 347.

Tobacco: Determination of oxidisable nitrogen oxides in cigarette smoke. Smith, Sullivan and Irvine, 456.

Gas chromatography in examination of constituents of Cannabis sativa L. (in mixtures with —). Heavsman, Walker and Lewis, 450.

Tocopherols: Examination of - by two-dimensional thin-layer chromatography and subsequent colorimetric determination. Whittle and Pennock, 423.

Tocotrienols: Examination of tocopherols by twodimensional thin-layer chromatography and subsequent colorimetric determination. Whittle and Pennock, 423.

Tongue: Nitrogen factor for gue: Nitrogen factor for —. Society for Analytical Chemistry, Analytical Methods Committee, Meat Products Sub-Committee, 326.

Tordon: See Picloram.

Toxicology: Laboratory Handbook of Toxic Agents. Gray. 2nd Edn. (Review), 67.

Tributyl phosphate: Inorganic thin-layer chromatography. II. Chromatography of first row transition metals on thin layers of substrates impregnated with --. Bark, Duncan and

Reversed-phase thin-layer chromatography of metal ions with --. Bark, Duncan and Graham, 347.

Tritium and its Compounds. Evans. (Review), 472.

Tungsten: Comparative elemental analyses of standard plant material. Bowen, 124.

Determination of combined nitrogen in metal powder. Awasthi, Sahasranaman and Sundaresan, 650.

Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark, Duncan and Graham, 347.

Voltammetric studies with different electrode systems. II. - as reference electrode in Athavale, Dhaneshwar and polarography. Dhaneshwar, 567.

Uranium: Collecting --(VI) on cellulose phosphate. Bruce and Ashley, 137.

Uranium nitrides: Determining nitrogen in -Taylor and Perrett, 64.

Uranyl ion: Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark, Duncan and Graham, 347.

salt: Determination of arsenic by II. Radiometric determination of microgram amounts of arsenic by filter-spot technique. Wilson and Lewis, 260.

Urea: Thin-layer chromatography of neutral drugs. Haywood, Horner and Rylance, 711.

Urine: Detection of ephedrine in biological material by ultraviolet spectrophotometry. Tompsett, 534.

Vacuum Microbalance Techniques. Vol. 5. Behrndt. (Review), 410.

Valine: Determination of small amounts of aminoacids. Heathcote and Washington, 627.

Vanadium: Determination of -- in silicate rocks and minerals with N-benzoyl-o-tolylhydroxyl-

amine. Jeffery and Kerr, 763. Inorganic thin-layer chromatography. II. Chromatography of first row transition metals on thin layers of substrates impregnated with tributyl phosphate. Bark, Duncan and

Graham, 31. Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark, Duncan and Graham, 347.

Vanadium-48: Recovery of trace elements after oxidation of organic material with 50 per cent. hydrogen peroxide. Down and Gorsuch, 398.

Vapour - liquid equilibrium: Determination of for multi-component systems. Pike and Freshwater, 268.

Voltammetry: Voltammetric studies with different electrode systems. II. Tungsten as reference electrode in polarography. Dhaneshwar and Dhaneshwar, 567.

Warfarin: Determination of -- in animal relicta. Fishwick and Taylor, 192; Erratum, 346.

Water: Determination of total organic matter (carbon content) in aqueous media. I. Organic matter in aqueous plant streams. Cropper, Heinekey and Westwell, 436; II. Involatile -, 443. organic matter in de-mineralised -

Determination of traces of magnesium, strontium and nickel in lake-water by neutron-activation analysis. Souliotis, Belkas and Grimanis, 300.

Determination of --- in organic liquids. Archer, Jeater and Martin, 524.

Dimethyl sulphoxide as solvent for isotopic analysis of - by infrared spectrometry. Mahadevan, 717.

Pre-reaction attachment for Karl Fischer cell (for determining ----). Lack and Frost, 396.

Weighing bottle for weighing hygroscopic materials. Redman, 584. Founder of Coordination

Werner: Alfred — Founder of Coordin Chemistry. Kauffman. (Review), 202. Wool: Determination of aluminium in atomic-absorption spectroscopy. Hartley and Inglis, 622.

### X

X-Ray Analysis: Advances in ---. Vol. 9. Mallett, Fay and Mueller. (Review), 277.

Xylenol orange: Spectrophotometric determination of aluminium in soil extracts with Pritchard, 103.

# Y

Ytterbium: Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark, Duncan and Graham, 347.

Yttrium: Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark, Duncan and Graham, 347.

7

Zine: Comparative elemental analyses of standard

plant material. Bowen, 124.

Determination of small amounts of — in organic matter. Society for Analytical Chemistry, Analytical Methods Committee, Metallic Impurities in Organic Matter Sub-Committee, 324.

Inorganic thin-layer chromatography. II. Chromatography of first row transition metals on thin layers of substrates impregnated with tributyl phosphate. Bark, Duncan and Graham, 31.

Loss of elements during decomposition of biological materials with special reference to arsenic, sodium, strontium and ——. Hamilton, Minski and Cleary, 257.

Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark,

Duncan and Graham, 347.
Zinc-65: Recovery of trace elements after oxidation of organic material with 50 per cent. hydrogen peroxide. Down and Gorsuch, 398.

Zine dithiol: Colorimetric determination of molybdenum in soils and sediments by ——. Stanton and Hardwick, 387.

Zircon: Direct complexometric determination of zirconium(IV) in relation to polymerisation (determining zirconium in ——). Sinha and Das Gupta, 558.

**Zirconium:** Determining niobium in metals and alloys (in ——). Williams, 43.

Reversed-phase thin-layer chromatography of metal ions with tributyl phosphate. Bark, Duncan and Graham, 347.

Zirconium-89: Recovery of trace elements after oxidation of organic material with 50 per cent, hydrogen peroxide. Down and Gorsuch, 398

Zirconium dioxide: Direct complexometric determination of zirconium(IV) in relation to polymerisation (determining zirconium in ——). Sinha and Das Gupta, 558.

# ERRATA:

## Vol. 89, 1964:

- p. 378, line 42. For "Ointment of Capsaicin B.P.C." read "Ointment of Capsicum B.P.C."
- p. 382, line 12. For "Capsaicin B.P.C." read "Capsicum B.P.C."
- p. 382, 1st sample in Table VII. For "Capsaicin B.P.C." read "Capsicum B.P.C."
- p. 382, 6th line under Capsicum B.P.C. For "100-ml" read "10-0-ml."
- p. 382, 9th line under Capsicum B.P.C. For "100-ml" read "10-0-ml."
- p. 383, line 22. For "Ointment of Capsaicin B.P.C." read "Ointment of Capsicum B.P.C."

# Vol. 91, 1966:

- p. 42. For second author "G. Catanzaro" read "E. W. Catanzaro."
- p. 202, 4th and 5th line under Determination of the half-life of the isolated radio-elements. For "36.88 hours" read "35.88 hours," and for "36.87 hours" read "35.87 hours."
- p. 349, 1st reference. For "Analyst, 1965, 88, 280" read "Analyst, 1965, 90, 199."
- p. 790, caption to figure. For "Fig. 1. Chromatogram of a Scotch all-malt whisky on polyethylene glycol 200" read "Fig. 1. Chromatogram of a cognac brandy on diethyl tartrate."
- p. 792, caption to figure. For "Fig. 2. Chromatogram of a cognac brandy on diethyl tartrate" read "Fig. 2. Chromatogram of a Scotch all-malt whisky on polyethylene glycol 200."
- p. 794, reference 2. For "1965, 26" read "1964, 27."

# VOL. 92, 1967:

- p. 65, correction to p. 30 of "Official, Standardised and Recommended Methods of Analysis." For "Dilute standard copper solution," read "Strong standard copper solution."
- p. 108, 7th line. For "Potassium permanganate, N" read "Potassium permanganate, 0.1 N."
- p. 141, 7th line from the bottom. For "hexane ozonide" read "hexane ozonide."
- p. 187, 12th line. For "solution,3" read "solution,4".
- p. 187, 19th line. For "sulphide.3" read "sulphide.4".
- p. 190, 6th line. For "Whatman GP/A" ad "Whatman GF/A."
- p. 194, 3rd line. For "Kieselguhr GF254" read "Kieselgel GF254."
- p. 194, 22nd line. For "Kieselguhr GF254" read "Kieselgel GF254."
- p. 232, last formula. For "7-(2-Sulpho . . .)" read "7-(4-Sulpho . . .)".
- p. 297, caption to Fig. 4. For "A, blank; B, 25 μg of tin sample; and C after correction for the blank" read "A, 25 μg of tin sample; B, after correction for the blank; and C, blank".
- p. 688, 3rd line above Table I. For "1.003 for iron(III)" read "0.997 for iron(III)".

